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## SCIENCE FICTION®

AUGUST 2015

### A Thousand Nights Till Morning

Will McIntosh

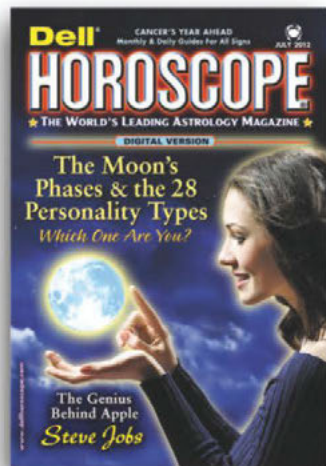
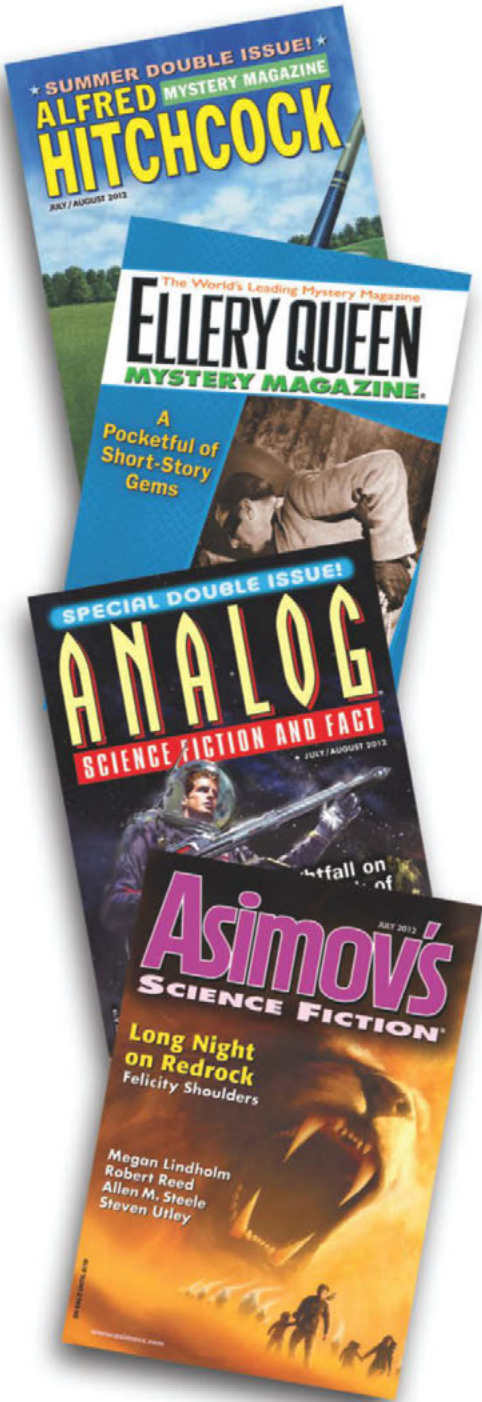
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## SCIENCE FICTION

AUGUST 2015

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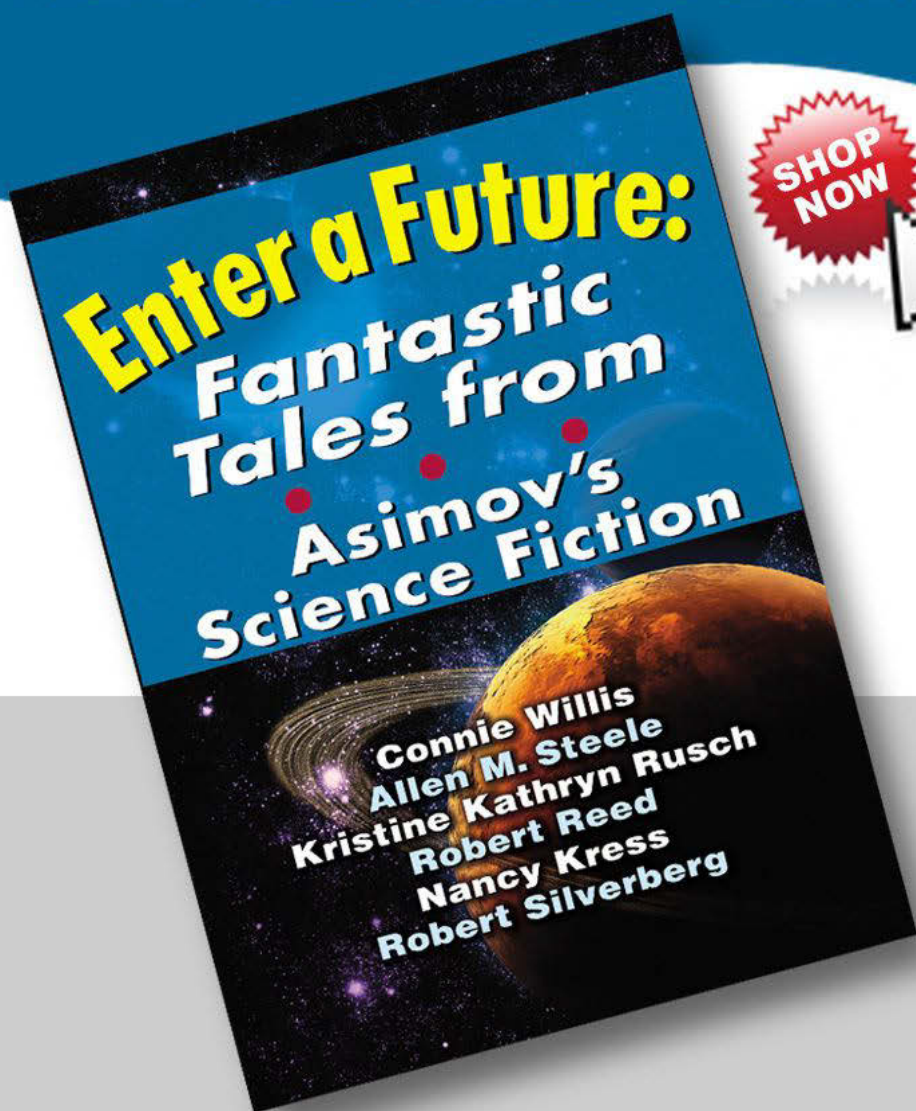
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## APPRECIATION

When the concept of a Readers' Award was first floated at this magazine in 1986, our founding editorial director, Isaac Asimov, expressed some skepticism. He believed that a sale to a professional market—where a story's publication would reach thousands of readers—was the real achievement. He preferred to see authors celebrate that accomplishment rather than compete with each other for prizes and awards. The Good Doctor was embarrassed when his tale of "Robot Dreams" won the first *Asimov's* Readers' Award for best short story. Although he agreed to accept the certificate, he wouldn't accept the check for a hundred dollars that accompanied the award. Isaac was not against awards, of course. In a different conversation a few months later, he told me that he hadn't felt himself a complete success until his peers, the Science Fiction Writers of America, named him a Grand Master. He just felt that his most important achievement was that people read and enjoyed his work.

Kim Stanley Robinson's story, "Mother Goddess of the World," was the winner of our Second Annual Readers' Award for best novella. His tale of "The Blind Geometer" had recently won the Nebula Award as well. On our way to the Readers' Award celebration that year, I mentioned Isaac's wistful comments about the Grand Master Award to Stan. Stan was stunned. Despite all his accomplishments, even Isaac Asimov needed reassurance? Did this mean the situation was hopeless for the rest of us?

Later that evening, Stan let Isaac know that he did not take the Good Doctor for granted. In his acceptance speech Stan said, "I also thank the person whose science fiction introduced me to the field and who has been a continuing

inspiration ever since—Isaac Asimov." Isaac was delighted by this very public tribute. In his February 1989 editorial, he wrote that after Stan's speech, "I waved and yelled and shouted."

I've always thought that Isaac's desire for SFWA's Grand Master Award had more to do with the human need to set goals and strive forward than it did with any further wish for career validation. After all, by 1987 Isaac had already won four Hugo Awards, two Nebula Awards, and five *Locus* Poll Awards. In 1982 he'd finally made the *New York Times* best sellers' list as well. Yet, if even Isaac was not quite satisfied, then what about all the unsung scribes—those that only win one or two awards, those that only end up with one or two nominations, and those that are never even nominated?

Every year we publish dozens of stories that don't rise to the top of our Readers' Poll. Some of my favorites have ended up among these under recognized tales. Isaac's droll George and Azazel fantasies and Steven Utley's quiet Silurian stories never made a big splash on our polls.

And then there are the stories that win the Readers' Awards yet don't appear on the other award ballots. The Hugos and the Nebulas are usually limited to five nominees per category so it's not surprising that our poll finalists rarely overlap with the finalists for these awards. A more useful comparison might be *Locus Magazine's* Recommended Reading List. That poll will often recommend fifteen to sixteen novellas and fifty to sixty suggestions in the short story and novelette categories.

Yet despite this broad array of stories and despite the fact that many *Asimov's* tales end up on the *Locus* List, there have been winners of our Readers' Award

Poll that have not received wider recognition. Among those are four of Kristine Kathryn Rusch's award-winning novels. Is this a conspiracy against Kris? Well, in 2013 Sandra McDonald and Megan Arkenberg tied for best short story yet, neither made it onto the list. Naomi Kritzer's 2014 winning short story and Carol Emshwiller's 2011 winner weren't there either. Could this be a conspiracy against *Asimov's* women writers? On Tuesdays and Thursdays I might entertain such suspicions, but then I am reminded that Allen M. Steele is also the author of a number of Readers' Award winners that haven't received nods from *Locus*. Recent stories by Will McIntosh, Derek Künsken, David Erik Nelson, and others have also missed the *Locus* list.

These tales are richly varied and engaging. Still, there are many rewarding tales on the *Locus* Recommended Reading List. *Vive la différence!* And on the plus side, *Asimov's* has been the recipient of *Locus's* Best Magazine Award for the past four years. Which brings us back to Isaac's contention that a story's real award is to be published and read by as many people as possible.

I recently came across an amusing Facebook comment by Daniel Hatch. "I've been publishing stories for twenty-five years now, and every time someone says they've read one of them, I feel like I've won a Hugo. I think I have seven of them." Dan is a frequent contributor to *Analog*. Although his stories haven't won awards, they have been contenders for the AnLab Award and Dan has had fiction on the *Locus* Recommended Reading List. When I asked permission to quote him, he said, "Feel free to use this. You could even mention my name. That would make me feel like I've won a Nebula."

So readers, pay attention to those urls and hashtags in my introductory notes to many of our stories. Let those writers know when you read and enjoy their tales. An appreciative comment may not be a Hugo or a Nebula, but it can be exactly what an author needs to keep producing their very best stories. ○

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**Stories from *Asimov's* have won 53 Hugos and 28 Nebula Awards, and our editors have received 20 Hugo Awards for Best Editor.**

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The book cover features a central image of a woman's face, looking directly at the viewer. The background is a deep purple and blue sky filled with stars and soft, ethereal clouds. The title 'A WOMAN'S LIBERATION' is printed in large, white, serif capital letters across the upper portion of the cover, partially overlapping the woman's forehead and the sky.

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## REUNITE GONDWANALAND!

I live in the intensely political San Francisco Bay Area, where nearly everyone holds some passionate position about the condition of the world and wants you to know all about it (although around here nearly everybody does know it already, anyway, and probably agrees with you).

One of the most popular ways of making one's opinions known is to affix a bumper sticker to the rear bumper (and sometimes the front one, too) of one's car. Thus, as I drive around, I am urged by the driver in front of me to FREE TIBET!, something I have no serious way of doing, since it would involve launching a war of liberation against China, and that's too big a job for a civilian like me. Inasmuch as the Bay Area is heavily pacifist, too, I don't know who else in the neighborhood is going to launch that war, either. There's definitely some cognitive dissonance here. (Wars aren't favored in my area. It's common to see faded stickers demanding NO WAR ON IRAQ, which must go back to 2004 or so, or U.S. OUT OF AFGHANISTAN, and there may be some older model cars on the road whose stickers decry our involvement in the Spanish-American War. And yet—how else are we going to free Tibet?) Stickers advocating same-sex marriage are common here, too, though that is hardly a live issue in this area any more, and there's a lot of stuff opposing global warming, another case of cognitive dissonance, since the car to which that sticker is affixed is burning petroleum even as it delivers its little lecture about my car's carbon footprint. (My car, by the way, is a politically correct hybrid. But the lecture is aimed in my direction anyway.)

Whether or not I agree with the positions being advertised, these bumper

stickers annoy me. It's hard enough getting around on our chaotic freeways without having the driver in front of me harangue me on this or that hot-button issue. Almost everybody here already shares the position being pushed, and the rest aren't going to be converted by a peremptory demand on the rear end of the car just ahead. But there's one bumper sticker that I find utterly charming, and it always gets a smile and a thumbs-up from me:

REUNITE GONDWANALAND!

Reuniting countries divided by the happenstances of war is usually something I approve of. It was good, I thought, to have the partition of Germany brought to an end by the absorption of the undemocratic German Democratic Republic into what used to be called West Germany. If troublesome North Korea were to be merged with South Korea, the world would instantly be a more peaceful place. As a Northern boy, I regarded the end of the Confederate Secession as a good thing for the United States. I'm not so sure that I support the reuniting of Gondwanaland, something that would drastically redraw the map of the globe and certainly create a considerable upheaval for my friends in Australia, among other places. But, living as I do in a place where all sorts of causes are stridently propounded via bumper stickers, this one is put forth with such good humor, such tongue-in-cheek cleverness, that I have to smile when I see it.

Gondwanaland? Where, you ask, is Gondwanaland?

Well, nowhere, actually, at least not these days. There hasn't been such a place for quite a long time—hundreds and hundreds of millions of years, in fact. That's why it is in need, its advocates say, of reuniting.



As early as the sixteenth century, explorers and mapmakers had noticed the startling similarities of contour in the eastern coast of South America and the western coast of Africa: if the two continents could somehow be slid toward each other, they would fit together like two pieces of a jigsaw puzzle. Later, biologists noting the presence of the ostrich in Africa and a related bird, the rhea, in South America, wondered how these large flightless creatures had migrated from one continent to the other. The discovery in even more distant Australia of yet another big bird of that sort, the emu, added to the mystery.

About 1858 the Austrian geologist Edward Suess offered a radical explanation for such puzzling phenomena as the curious similarity of the coasts of Africa and South America and the presence of related species like the ostrich, rhea, and emu in places separated by huge distances. The continents, he said, had been arrayed in a vastly different configuration half a billion years ago. He lumped the entire ancient southern hemisphere into one immense continent that he called "Gondwanaland," taking the name from that of Gondwana, a district in India where key geological evidence supporting his theory had been found. (Since "Gondwana" means "land of the Gonds," the inhabitants of that district, adding "land" to the name of Suess's supercontinent created a redundancy, but nothing can be done about that now.) Gondwanaland, said Suess, once stretched across half the globe, beginning with the southern part of India and continuing through the Malay Archipelago, New Zealand, and Australia to South America and finally Africa. North of this giant land mass lay a long, narrow body of water that he called the Tethys Sea, above which were the land masses that would become North America and Eurasia. The Atlantic and Indian Oceans did not exist; the Pacific ran from the coast of China to the western shores of the Americas, but in the southern hemisphere, between South America and New Zealand, all was dry land. Contractions

of the Earth's skin had pulled Gondwanaland apart long ago, creating the present pattern of the continents. "The collapse of the world is what we are witnessing," Suess concluded.

Suess' contraction theory, which most scientists had trouble accepting, was supplanted in 1912 by the continental-drift hypothesis of the German meteorologist Alfred Wegener. He, too, sought to explain the way South America and Africa fit together, the similar fit of Madagascar into Africa's eastern coast, and the affinities of many geological formations and fossil animals in widely separated continents. Wegener supposed that the Earth is composed of three layers of material that can be distinguished by their weight. The large, heavy core is made up mostly of nickel and iron, a material he called *nife*, from "nickel" and "*ferrum*," the Latin word for iron. Surrounding the nife core is a fairly thick shell of what Wegener termed *sima*, from "silicon" and "magnesium." Floating atop the sima lies a relatively thin mass of what he called *sial*, from "silicon" and "aluminum." The sial layer does not make up a complete shell, but covers only about one quarter of the Earth's surface.

Originally, said Wegener, there was but a single block of sima, constituting all the globe's land in one giant continent. This great primordial mass broke up under the action of forces generated by the rotation of the Earth; the lower half became world-spanning Gondwanaland, and two chunks of sial to the north became the ancestors of North America and Eurasia. The continents then began to drift about on the underlying sima like icebergs floating in an ocean. Eventually the strains thus created split Gondwanaland apart into South America, Africa, India, Australia, New Zealand, and Antarctica, and sent the newly formed segments drifting toward their present locations.

Wegener's theory was an ingenious one, and useful insofar as it offered a plausible explanation for the problems that the geological, biological, and

geographical evidence posed. But many scientists found his speculations hard to accept, ideas more worthy of science fiction than of science—a pleasant fairy tale, no more substantial than the tales of the lost continents of Atlantis and Lemuria. As late as 1960 the concept of continental drift had little serious scientific support. But then new seismological data began to indicate that the continents were in fact capable of movement, leading to the emergence of the theory of *plate tectonics*, first proposed in 1953 and definitively established in a 1968 article by the geophysicist Jack Oliver.

We know now that the Earth's surface is broken up into seven or eight huge plates and many minor ones, which are driven by titanic forces to wander about above the world's deep mantle. When these forces bring the edge of one plate into collision with another, earthquakes result, mountains are pushed up, volcanoes are created, new land is pulled up out of the sea. In some parts of the world, plate movement is so slow as to be practically negligible. In others—such as California, where I happen to live—the movement of plate against plate is relatively swift, and, alas, often has violent consequences, as we here in earthquake country are only too well aware.

So the old Gondwanaland theory, as first proposed two hundred years ago by Edward Suess and modified half a century later by Alfred Wegener, turns out to have some scientific substance after all. There is no longer any serious doubt that in Cambrian times, half a billion years ago, a colossal land mass occupied the part of the world that runs from what are now India and Australia to South America and onward to the east coast of Africa. Immense forces, not yet fully understood—some combination of the movements of the sea floor and the tidal pulls of the Sun and the Moon, perhaps—broke this supercontinent into several huge segments, which have been drifting around ever since.

And so some jolly geologist, taking his lead from the profusion of politically

driven bumper stickers urging this or that rearrangement of our troubled world's national configurations, dreamed up the REUNITE GONDWANALAND! sticker that I occasionally see and chuckle over as I drive around the San Francisco Bay Area. Should it happen—don't worry; putting Gondwanaland back together is even less likely than the separation of Tibet from China's governmental grasp—I suspect that my own life, out here on North America's western edge, would be little changed. We Californians would still have the San Andreas Fault and global warming to worry about. The beauties of Australia's Great Barrier Reef would be lost, though, along with the lovely beaches of Sydney and Rio de Janeiro and Bali, and much, much else. And imagine the new bumper stickers bearing protests from the anti-globalization crowd as we fumble our way back to One World. Brazil glued to Liberia? Australia stuck to Peru? Highways and pipelines and railway tracks spreading across what once had been the South Atlantic and the Indian Ocean?

It won't happen. Neither will most of the other stuff that the bumper-sticker advocates in my neighborhood are trying to sell the guy driving behind them on the freeway. The difference is that the really dedicated sticker-folk are deadly serious about the causes they support. The REUNITE GONDWANALAND! types are just having fun. May their tribe increase. ○



## WELCOME TO ASIMOV'S

*meet the firsties*

A couple of weeks ago I was ~~wasting time browsing Facebook~~ hard at work as your internet columnist when I came upon an infectiously joyous post from new writer Kelly Robson, who announced that she had just sold her first story to this magazine. As I read what she wrote, I was reminded of all the happy dances I'd done back when I first started placing stories. When you break into a new market, rainbows stretch across the sky and unicorns sing! But I also thought of all those writers aspiring to appear on our table of contents who have convinced themselves that it's an impossible dream. To them I say, despair not! People do it all the time. In fact, let's meet ten writers who have very recently placed their first *Asimov's* stories.

**Kelly Robson's** <[www.kellyrobson.com](http://www.kellyrobson.com)> "Two-Year Man" will be published in the August issue. Her first four stories are appearing in other publications like *Tor.com* and *Clarkesworld* even as you read this. **Genevieve Williams's** <[welltemperedwriter.wordpress.com](http://welltemperedwriter.wordpress.com)> first appearance here was "The Redemption of Kip Banjeree" in the March 2014 issue. She has also sold to *Strange Horizons* and Prime Books. **Dale Bailey** <[www.dalebailey.com](http://www.dalebailey.com)> debuted in the September 2012 issue with "Mating Habits of the Late Cretaceous." His distinguished career began in 1993 with a sale to *F&SF*, where much of his short fiction has appeared. **Doug C. Souza's** <[dougsouza.com](http://dougsouza.com)> first professional sale ever, "Mountain Screammers," was in the August 2014 issue. **Joe M. McDermott's** <[jmmcdermott.wordpress.com](http://jmmcdermott.wordpress.com)> "Dolores,

Big and Strong" appeared in the April/May 2014 issue. He is the author of six novels and a couple of dozen stories. **Kate Bachus's** <[katebachus.com](http://katebachus.com)> first story here was "Pinono Deep," in the October/November 2014 issue. She has sold several stories to *Strange Horizons*, among other magazines and anthologies. **Brendan DuBois's** <[BrendanDuBois.com](http://BrendanDuBois.com)> "Minutes to the End of the World" was also in the October/November 2014 issue. Although best known as a mystery and suspense writer, he's also had many stories published in science fiction 'zines and anthologies. **Christopher Rowe's** <[christopherrowe.typepad.com](http://christopherrowe.typepad.com)> "The Unveiling" was in the January 2015 issue. He's been a finalist for the Hugo, Nebula, World Fantasy, and Theodore Sturgeon Awards. **Fran Wilde** <[franwilde.wordpress.com](http://franwilde.wordpress.com)> published "Like a Wasp to the Tongue" in the April/May 2014 issue. Her first novel, *Updraft*, is due shortly from Tor. You can find **Christopher East's** <[christopher-east.com](http://christopher-east.com)> "Videoville" in the December, 2014 issue. Chris has published a dozen-odd stories in markets like *Interzone*, *Talebones*, and *The Third Alternative*.

I was interested in the experience of these writers as readers of *Asimov's*. Many of them have long histories with the magazine. Brendan has been a reader on and off since the first issue in 1977. Dale started just after that. Kate has been reading here since 1984, Chris East since 1986. Doug has been a subscriber for the past five years. Fran began in high school, while Christopher Rowe writes, "When I was around twelve years old, my mom gave me two extraordinary gifts. One was a membership in

the Science Fiction Book Club and the other was a dual subscription to *Asimov's* and *Analog*." Kelly remembers, "Finding the January 1984 issue with **Connie Willis's** <[sf-encyclopedia.com/entry/willis\\_connie](http://sf-encyclopedia.com/entry/willis_connie)> 'Blued Moon' on the cover is a memory I can replay in full sensory surround. I clearly remember sitting in the front bench seat of our 1977 Suburban as it roared down the highway, reading Connie's story and laughing. It was the first time I'd ever experienced intellectual playfulness, and the first time I'd ever heard of linguistics."

I asked when they began submitting stories and how many rejections they had collected over the years. Dale had been trying very intermittently since he attended **Clarion** <[clarion.ucsd.edu](http://clarion.ucsd.edu)> in 1992 and has earned "... not more than two or three rejections. I write pretty slowly, so my rejection rate is slow as well." Doug had just two rejections before his breakthrough story. Joe writes, "I remember meeting Sheila Williams at **ArmadilloCon** <<http://2015.armadillocon.org>> soon after my first rejection, maybe in 2008. She was very explicit with me that I needed to send her more stories back then. I had already had a novel out, and I was mostly writing fantasy at the time, so I didn't have a huge number of things to send her. I've sent her around a dozen or so things over the years." Kelly tried for the first time last year and got "One very generous, enthusiastic, kind rejection that sent me scurrying for another piece to submit. I was bending my brain, trying to get something new into shape for her, knowing it would take months and despairing. But then an SF story became available when a friend's anthology hiccupped. Why I didn't submit that story to *Asimov's* in the first place, I'm not sure. A lack of confidence, perhaps—definitely a lack of confidence." Christopher Rowe sold to Sheila on his first try. Chris East has been submitting for some twenty years. His rejections? "From Sheila, it's nineteen. From the magazine in general, it's actually seventy-nine! I'm

not sure if I should be embarrassed by that, or proud ... a little of both, I guess." (I'm proud of you, Chris!) Genevieve has also been at it for twenty years "... on and off. I started sending stories out regularly again about a year and a half ago; in that time, I've had three rejections and one acceptance from Sheila." Fran tried for the first time in 2011. And her rejections? "Oh, I don't count rejections. (Ha. ... Four.)"

Many aspiring writers wonder about how long they will have to wait before Sheila responds to their submission. Here's some fresh data. Dale: "It wasn't long. Three or four weeks maybe." Kelly: "Only fifteen days, and that was over Christmas. I was very lucky!" Chris East: "Thirty-three days." Joe: "About sixty or eighty days." Kate: "Forever! OMG! No, it was a long time. Months, I think, where previous answers to submissions had come quickly." Genevieve: "**Duotrope** <[duotrope.com](http://duotrope.com)> says eighty days from submission to acceptance." Brendan: "Just a few weeks." Christopher Rowe: "One month." Fran: "It always feels like forever, doesn't it?"

### market analysis

How did this group of first time contributors decide what stories of theirs to send to *Asimov's*? Some have very different ideas about what Sheila is interested in. Kate writes, "I think of *Asimov's* as being sort of 'classic' sci fi. Based on what I'd read over the years—with exceptions of course—the main 'flavor' seemed like more traditional, **Golden Age** <[sf-encyclopedia.com/entry/golden\\_age\\_of\\_sf](http://sf-encyclopedia.com/entry/golden_age_of_sf)> type stories. So if I had a harder core, science-y story, I'd send it. In retrospect, I think a failure to recognize that the magazine had subtly but definitely changed under Sheila's control meant that I didn't submit several stories I should have." Dale is impressed by the breadth of Sheila's taste. "I've only sold two stories to *Asimov's* but one of them was sci fi and one of them was a very



**dark fantasy** <[en.wikipedia.org/wiki/Dark\\_fantasy](http://en.wikipedia.org/wiki/Dark_fantasy)>.” Chris East agrees, “*Asimov's* is one of the field's flagship markets for core science fiction, but it has also always struck me as having an open-minded, ‘big umbrella’ approach in terms of its genre content.” Brendan picks up on this point, “Based on my experience, I'd say that Sheila is open to submissions from both newbies and old timers (like me, I guess) and looks for stories that don't fit into the traditional SF category.” Joe thinks “. . . the mark of a good magazine, in SF/F, is the presence of the best writers in the genre. I still think of **Carol Emshwiller** <[sfwa.org/members/emshwiller](http://sfwa.org/members/emshwiller)> and **Maureen McHugh** <[maureenfmchugh.com](http://maureenfmchugh.com)> as the markers of success for a science fiction publication. I have a vivid memory of a short story by Carol Emshwiller that was haunting and surreal. Reading that story made me want to publish in that magazine.” Doug's take: “I like how *Asimov's* doesn't shy away from Golden Age sci fi type stories—I think this is a great tribute to the late **Isaac Asimov** <[asimovonline.com](http://asimovonline.com)>. Not all stories have space rangers flying in to save the day, but there is a regular feel for ‘heart’ in the stories.” Fran focuses on content, “If the story is leaning technical, or engineering, especially, I earmark it for Sheila,” while Genevieve concentrates on length, “I'm still learning what fits which markets best, but *Asimov's* feels like a pretty good fit for the kinds of stories I write. My short stories tend to be on the longer side of short, and many of the online markets prefer shorter lengths or flash.” Kelly believes that “All editors are thoughtful curators who care about good stories over all else. I think Sheila really cares about indelible characters with real emotional lives. A story with living characters facing real problems is more likely to catch her eye than a flashy or fashionable concept, however well executed and science fictional.” Christopher Rowe sums up, “I think *Asimov's*, under Sheila's editorship, has maintained its

primacy of place as a sort of keystone species in the ecosphere of speculative fiction. If you want to know about the conversation going on in short fiction (which in turn influences what will become the conversation in novels a bit later, I believe), than you need to be reading *Asimov's*.”

*exit*

Golden Age sci fi or dark fantasy or haunting and surreal slipstream?

If you really want to know what kind of story Sheila will buy, all you have to do is to check this issue's table of contents. Which is why the one thing these writers have in common, whether they've been submitting for a couple of months or a couple of years or a couple of decades, is that they *read the magazine*. It seems obvious, but all too many clueless newbie writers don't bother. Something Doug wrote struck me as very honest and true to my own experience, “Every once in a while there's a story that I can't make sense of.” Joe elaborates, “I know there have been stories I genuinely didn't like at all. I find that trying to game an editor's taste both makes me not a great writer, and not a great reader. Especially as a reader, coming with preconceptions about what I might find in a magazine will only close my mind and set me up to miss out on what makes some things amazing and some things not.”

From time to time Sheila has rebuked me for telling people—students and other writer pals—that a story I'd read in workshop wasn't quite right for her magazine. Of course, we writers have a sense of what this editor or that is likely to buy, and we certainly feel free to share our opinions, but I take Sheila's point. Editors are full of surprises—for good and for ill. It's foolish for writers to decide what they're likely to buy.

What is the perfect *Asimov's* story? Turn the page and find out. And don't forget to watch for new contributors! ○

**Nick Wolven lives in New York City, which among its many other superlatives is said (by its occupants, anyway) to have the worst dating scene in the country. Too many choices, too many expectations—too many big, big dreams. While it's been a number of seasons since he did his time in that infamous pepper mill of the soul, apparently he was still traumatized enough to write . . .**

# **NO PLACEHOLDER FOR YOU, MY LOVE**

**Nick Wolven**

**1**

**C**laire met him at a dinner party in New Orleans, and afterward, she had to remind herself this was true. Yes, that had been it, his very first appearance. It seemed incredible there had been anything so finite as a first time.

He was seated across from her, two chairs down, a gorgeous woman on either side. As usual, the subject had turned to food.

"But I've been to this house a dozen times," one of the gorgeous women was saying. "I've been to dinner parties, dance parties, even family parties. And every time, they serve the wrong kind of cuisine."

She had red hair, the color of the candlelight reflected off the varnished chairs. The house was an old house, full of old things, handmade textiles and walnut chiffoniers, oil paintings of nameless Civil War colonels.

"Is that a problem?" said the young man on Claire's left. "Why should you care?"

"Because," said the redhead, pursing her lips. "Meringue pie, at an elegant soiree? Wine and steak tartar, at a child's birthday party? Lobster bisque at a dance? For God's sake, it was all over the floor. It seems, I don't know. Lazy. Thoughtless. Cobbled together."

She lifted her glass of wine to her mouth, and the liquid vanished the instant it touched her tongue.

The man who was to mean so much to Claire, to embody in his person so much hope and loss, leaned over his soup, eyes dark with amusement. "It *is* cobbled together. Of course it is. But isn't that the best part?"

"And why is that, Byron?" someone said with a sigh.

Byron. A fake name, Claire assumed, distilled from the fog of some half-remembered youthful interest. But then, you never knew.

Whatever the source of his name, Byron's face had the handsome roughness earned through active living. Dots of stubble grayed his skin. A tiny scar divided one eyebrow. His smile made a charming pattern of wrinkles around his eyes. It was a candid face, a well-architected face, a forty-something face.

"Because," said Byron, and caught Claire's eye, as if only she would understand. "Look at this furniture, the chandelier. Look at that music stand in the corner. American plantation style, rococo, Art Nouveau. Every piece a different movement. Some are complete anachronisms. That's why I love this house. You can see the spirit of the designers, here. A kind of whimsy. It's so personal, so scattershot."

"You're such a talker, Byron," someone sighed.

"Look at all of you," Byron said, moving his spoon in a circle to encompass the ring of faces. "Some of you I've never seen before in my life. And here we are, brought together by chance, for one evening only. You know what? That delights me. That thrills me." His gesture halted at Claire's face. "That enchants me."

"And after tonight," said the redhead, "we'll go our separate ways, and forget each other, and maybe never see each other again. So is that part of the wonder, for you, Byron, or does that spoil the wonder?"

"It does neither," Byron said, "because I don't believe it."

His eyes settled on Claire's. Again, he smiled. She had always liked older men, their slightly chastened air, their solemn and good-humored strength.

"I don't believe we'll never see each other again," Byron said, looking at his spoon. "I don't believe that's necessarily our fate. And you know what? The truth is, I wouldn't mind living in this house forever. Even if they do serve alphabet soup at a dinner party."

He lifted his hand to his mouth and touched his spoon to his lips. And instantly, the liquid disappeared.

When they had cleared the table, the entertainments began. There were board games in the living room, a live band on the lawn. Stairs led to a dozen shadowy bedrooms, with sad old beds, and rich old carpets, and orchids in baskets on the moonlit windowsills. In town, the music of riverbank revelry scraped and jittered out of ramshackle bars, and paddleboats rode on the slow Mississippi, jingling with the racket of riches won and lost.

Byron borrowed a set of car keys from the houseboy. Claire followed him onto the porch. The breath of the bayou was in the air, warm and buoyant, holding up the clustered leaves of the pecan trees and the high, star-scattered sky. Sweat held her shirt to the small of her back, as if a hand were there, pressing her forward.

"Shall we take a ride?" The car keys dangled, tinkling, from Byron's upraised hand.

"Wait," said Claire, "do that again."

"This?" He gave the keys another shake. The sound tinkled out, a sprinkling of noise, over the thick green nap of the lawn.

"It sounds just like it," Claire said. "Don't you hear it? It sounds just like the midnight chime."

"Oh, God, don't talk about that now. It's not for hours." Byron went halfway down the porch steps, held out a hand. "We still have plenty of time to fall in love."

The car waiting for them was an early roadster, dazzling with chrome, large and slow. Byron handled the old-fashioned shift with expert nonchalance. They slid past banquet halls downtown, where drunkenness and merriment and red, frantic faces sang and sweated along the laden tables. Often, they pulled to the curb and idled, and the night with its load of romance rolled by.

At a corner café where zydeco livened the air, a young couple argued at a scroll-work table.

"But how can you define it? How can you even describe it?" The woman's arm swung as she spoke, agitating the streetlights with a quiver of silver bracelets.

"Well, it's easy enough to *define*, anyway." The man made professorial motions with his hands. "It was simply a matter of chemistry."

"But how would that be any different from, say, smell?"

"Oh, it wasn't, not really. Taste and smell. Love and desire. All variations on the same experience."

The couple lifted fried shrimp from a basket as they spoke, the small golden morsels vanishing like fireflies on their lips.

"It can't be so simple," the woman said. And the man leaned over the table, reaching for her face, and turned it toward his lips. "You're right. It's not."

"I used to have those kinds of conversations," Byron sighed. He grasped the old maple knob of the shift, and pulled away from the curb.

They drove out of town onto rural dirt roads, where moonlight splashed across the land. In a plank roadhouse, a dance party was underway, a fiddle keening over stamping feet. Parked in the dirt lot, soaked in yellow light, they conducted the usual conversation.

"Now, me?" Byron said. "Let me tell you about myself. I'm a middle-aged computer programmer who enjoys snuggling, whiskey, and the study of artificial environments. I have a deathly aversion to crowds, and I'm not afraid to admit it. I'm nowhere near as handsome as this in real life, and I can assure you, I've been at this game a very long time."

His face dimpled as he delivered his spiel, not quite smiling. Claire laughed at his directness. Byron thumped a short drumroll on the wheel.

"And you?"

"Oh, me?" Claire said. "Me? I'm no one."

"That's an interesting theory."

"What I mean is, I'm no one anyone should care about. *I* don't even care about me."

"That can't be true."

"I guess not. I guess what I mean is, I don't care who I used to be." Claire watched the figures dance in the building, the plank walls trembling as shadows moved like living drawings across the dirty windows. "I care what happens to me now, though. I care about nights like this."

Her lazy hand took in the dancers, the stars. Byron sat back, nodding.

Claire surrendered. "I don't know. There's an interesting woman back there, somewhere. A scholar, a geneticist. But it's hard to believe, nowadays, that she ever existed."

"Tell me about this geneticist," he said.

"Well." Claire afforded him a smile. "What do you want to know? She looked like me. She talked like me. She loved all the things I love. She loved rainy windows and Scrabble and strong tea. She loved her body, because she had a nice one, and she loved to take long baths with organic soap, and she loved the idea that one day, far in her future, there might be someone to share those baths with her. Mostly, I think, she loved the idea that she could find a man who didn't care about any of those things. A man who would simply take her hand and say, 'Let's go.'"



The fiddle stopped. The dancers halted. The shadows on the windows settled into perfect sketches: honey-colored men and women with open, panting lips.

"She was young," Claire said. "And she was lonely."

Byron nodded. "I understand."

Someone threw open the roadhouse door. A carpet of gold rolled down the steps, all the way up the hood into the car, covering Claire in mellow light. Byron studied her. She knew what he was seeing. A beautiful blonde, a perfect face, a statue of a body with cartoon-sized eyes.

"But you're not," he said. And after a moment, he clarified: "Young. Not anymore. Are you?"

"No," said Claire. "Not anymore."

They drove to town along a different route, on dark, swampy roads where alligators slithered, grunting, from the wheels. On a wharf lined with couples and fishing shops, they stood at the wood rail, looking over the water, waiting together for the midnight chime. A gas-powered ferry struggled from shore, heading northeast toward a sprawl of dark land.

"I don't care," Byron said. "I don't care if you were a biologist. I don't care if you love Scrabble or tea. I don't care about any of that." He held out a hand. "Let's go."

The couples on the wharf had fallen silent, waiting. The very twinkling of the stars seemed to pause. Still, the ferry strained and chugged, heading for a shore it would never reach.

"Say it," Claire said. "You say it first, then I'll say it, too."

"I want to see you again," Byron said.

She took his hand. Before she could respond, the midnight chime sounded. It came three times, eerie and clear, like a jingle of celestial keys. And Byron and the river and the world all disappeared.

## 2

Claire didn't see him again for a thousand nights.

It felt like a thousand, anyway. It may have been more. Claire had stopped counting long, long ago.

There were always more nights, more parties, more diversions. And, miraculous as it seemed, more people. Where did they come from? How could there be so many pretty young men, with leonine confidence and smiling lips? How could there be so many women arising out of the million chance assortments of the clubs, swimming through parties as if it could still be a thrill to have a thousand eyes fish for them—as if, like the fish in the proverbial sea, they one day hoped to be hooked?

Claire considered them, contemplated them, and let them go their way. She dated, for a time, a very old, handsome man whose name, in some remote and esoteric way, commanded powerful sources of credit. His wealth opened up new possibilities: private beaches where no one save they two had ever stepped, mountain lodges where the seasons manifested with iconic perfection, pink and green and gold and white. But they weren't, as the language ran, "compatible"; they were old and tired in different ways.

She met a girl whose face flashed with the markings of youth: sharp earrings, studs, lipstick that blazed in toxic colors. But the girl's eyes moved slowly, with the irony of age. Theirs was a sexual connection. Night after night, they bowed out of cocktail hours, feeling for each other's hands across the crush of dances. Every exit was an escape. They sought the nearest private rooms they could find: the neon-

bright retreats of city hotels, secret brick basements in converted factories. The thrill was one of shared expertise. Both women knew the limits of sex: what moves were possible, what borders impermeable. They cultivated the matched rhythm, the long caress. Sometimes Claire's new lover—whose name, she learned after three anonymous encounters, was Isolde—fed delicacies to her, improbable foods, ice carvings and whole cakes, a hundred olives impaled on swizzle sticks, fruit rinds in paintbox colors, orange and lime, stolen from the bottomless bins of restaurants. It was musical sport. Isolde perfected her timing, spacing each treat. Claire eased into a languor of tension and release, her body shivering with an automatic thrill. As the foods touched her mouth, one by one, they flickered immediately into nothingness—gone the instant she felt them, like words on her tongue.

A happy time, this. But love? Every night they were careful to say that magic phrase, far in advance of the midnight chime.

"I want to see you again."

"I want to see you, too."

And so the nights went by, and the dates, and the parties, spiced with anticipation. Soon, Claire knew, it was bound to happen.

The end came in Eastern Europe.

"We could have been compatible, don't you think?"

They were reposing, at that moment, in a grand hotel with mountain views, somewhere west of the Caucasus, naked in bed while snow flicked the window. Isolde lifted a rum ball from a chased steel tray, manipulating it with silver tongs. She touched it to the candle, collected a curl of flame, brought the morsel, still burning, to her mouth, and snuffed it out of existence, fire and all, against her tongue.

Claire clasped her hands around a pillow. "Do you think so?"

Isolde seemed nervous tonight, opening and closing the tongs, pretending to measure, as with calipers, Claire's thigh, her knee.

"Don't get me wrong. I'm not saying we *are* compatible. I'm only talking about, you know. What might have been."

Beyond the window, white flakes swarmed in the sky, a portrait of aimless, random motion.

"We're attracted to each other," Isolde said. "We have fun. We always have fun."

"That's true. We always have fun."

"Isn't that what matters?"

"Nothing matters," Claire said. "Not for us. Isn't that the common consensus?" She made sure to smile as she said it, lying back with her hands behind her head.

Isolde seemed pained. "I'm only saying. If things had been different. We might have worked. We might have . . ." She blushed before speaking the forbidden phrase. "We might have made a match."

Claire felt her smile congealing on her face. She marveled at that—watched, in the oak-framed mirror atop the dresser, as her expression became an expression of disgust. "But things *aren't* different. Wouldn't you say that's an important fact? Things are exactly, eternally what they are."

"Eternally. You can't know that."

"I can believe it." Claire sat up, looking out the window, where snowfall and evening had blanked out the sky. "If you want to know what might have been, just wait for the midnight chime. You'll get a thousand might-have-beens. A thousand Romeos and Juliets. A thousand once-upon-a-times."

Isolde was shaking, a subtle, repressed tremor that Claire only noticed by looking at the tongs in her hand.

"I know, I know. I'm only saying . . . I mean, how can you resist? How can you stop thinking about it? About us. About . . ." Her voice dropped. "About love."

Claire turned from the window, saying nothing, but the mood of the view filled her eyes, the gray mountains falling away into whiteness, the cold precipitation of a million aimless specks.

"I just like to imagine," Isolde whispered. "That's all. I like to imagine it could be different."

A clock stood on the bedside table, scuffed wood and spotted brass, a heavy relic of interwar craftsmanship. Isolde snatched it up with a gasp.

"What's the matter?" Claire said.

"I just realized."

"What? What did you just realize?" In Claire's tone was an implied criticism. *What can there possibly be, she wanted to ask, for us to realize? What can we discover that we don't already know?*

Isolde touched the clock face. "We're in a time-shifted universe. The midnight chime comes earlier, here. At sunset."

They looked together at the window, where the sky had darkened to charcoal gray.

"We never said it," Isolde whispered. "We forgot to say it, this time." She lay beside Claire, a hand on her belly, saying in a shaking voice, "I want to see you again."

The clock ticked. Snow tapped the window.

"I want to see you again," Isolde repeated. "Claire? I want to see you again."

The clock hands had made a line, pointing in opposite directions. How precise, Claire wondered, would the timeshift be? Sometimes these things could be surprisingly inexact. Sometimes, even the designers made mistakes.

"Claire, please say it. I'm sorry I said all those things. We're not really a match. I was only speculating. Anyway, it doesn't matter. Does anything matter? We don't have to talk. We can go back to how it was. We can hang out, play games, have fun."

In only a moment, a new evening would begin: new faces, new men and women, new possibilities. A whole new universe of beautiful people, like angels falling out of the sky.

"Claire, *please* say it. I want to see you again."

"Maybe you will," Claire said.

And at that moment, the chime sounded, tinkling and omnipresent, shivering three times across the mountain sky. And Isolde and her voice and her tears disappeared.

### 3

**A** dry period, then.

Dry? No, that word couldn't begin to describe this life. It was desert, desolate, arid, barren, with a harsh wind that cut across the eyes, with sharp-edged stones that stung the feet.

Claire became one of *those people*. She was the woman who haunts the edges of dance floors, rebuffing with silence anyone who dares to approach. At house parties, she wandered out for impromptu walks, seeking the hyperbolic darkness between streetlights, the lonely shadows below leylandii. At dinner parties, she made jokes intended to kill conversation.

"Knock, knock," Claire said, when young men leaned toward her.

"Who's there?"

"Claire."

"Claire who?"

"Exactly."

"Here's a good one," Claire said, to a woman who approached one night on a balcony, the champagne sparkles of a European city bubbling under their feet. "A woman walks into a bar full of beautiful people."

When the silence became uncomfortable, the woman prompted: "And?"

"And," said Claire turning away, "who cares?"

She was bitter. But she didn't care about her bitterness. Like all things, Claire assumed, this too would pass.

On an Amazonian cruise, Claire hit her low point. It was, most surely, a romantic night. Big insects sizzled against the lamps that swung, dusky gold, from the cabin house. The river gathered white ruffles along the hull. A banquet was laid out on deck, river fish on clay platters borne by shirtless deckhands. The dinner guests lounged in a crowd of cane chairs. When Claire came up from below, she found the party talking, as always, about the food.

"I've been here a hundred times." The woman who spoke was white, brunette, beautiful. "I think I'm something of an expert on this universe. And what I always admire is the attention to local cuisine. Everything comes straight from the river. It's so authentic."

Claire, who'd entered unnoticed, startled them all with a loud, braying laugh.

"Excuse me?" said the woman. "What do you find so funny?"

The group stared, pushing back their chairs, eyes kindled with reflected lantern light.

"This," Claire said, and snatched a clay platter out of the hands of the servingmen. "I find this funny." She dumped the fish on the floor, jammed the platter into her mouth. They all winced as her teeth clamped down, grinding on textured ceramic. "Mm, so authentic."

"What in the world," said the woman, "is the matter with you?"

"Nothing. I'm simply trying to eat this platter."

"But *why*?"

"Because why shouldn't I?" Claire smashed the platter on the deck. "Why shouldn't I be able to? What difference does it make? Why shouldn't anything—any of this—be food?" She stomped around the deck, offering to take bites of the rails, the lamps, the life preservers. "Why shouldn't I be able to perform the trick with anything I want? Why shouldn't I be able to pick *you* up, and send you into the ether with just a touch of my tongue?"

She grabbed at the arm of a nearby man, who pushed his chair back, winking. "Please do."

Claire threw his hand down in disgust. "I should be able to pick up anything I see, and touch it to my lips, and make it disappear. And why can't I? It works with fish. It works with fruit. It works with soup and fried shrimp and wedding cakes."

Expecting protest, mockery, a violent reaction, she faced with dismay the rows of indifferent, idle faces.

"God, I'm so sick of this life," Claire finished weakly. "I'm sick of always talking about things I can never have."

"But are you sick of me?"

Claire turned and Byron was standing behind her, leaning on the rail beside the deckhouse, a beer bottle dangling from his hand.

"You?" Claire was stunned. She could hardly believe she recognized him, but she did.

Byron strolled forward and touched her hand. "You never said it."

"Sorry?"

"Eight hundred and ninety-two nights ago. New Orleans. I said I wanted to see you again. You never answered."



"I meant to." Claire struggled for breath, aware of the watching crowd. "I wanted to. I ran out of time."

He flung his beer bottle overboard. She waited without breathing for it to plunk in the distant water.

"We have time now," he said.

Dismissing the party with a wave, Byron guided Claire into a lifeboat. With a push of a lever, a creak of pulleys, he lowered them to the water and cut the rope. They drifted loose in darkness, a lantern at their feet. The big boat moved away on a thump of diesel, the strings of lamps and the hundred candles merging into one gold blur. Byron set the oars in the locks, rowing with a grace that seemed derived from real strength: strength of body, of muscle and sinew, strength that belonged to the kinds of people they had both once been.

"Do you know why we can't eat food?" Byron spoke at his ease, fitting sentences between the creak of the oarlocks. "Do you know why we have no taste, no smell, no digestion? Do you know why we can never eat, and only make food vanish by touching it to our lips?"

His voice sounded elemental, coming out of the darkness: the voice of the river, the jungle, the night.

"Appetite," Byron said. "We were made without appetite. We were made to want only one thing. True love."

He let the oars rest. They rocked on the water. The riverboat was gone now, its voices and music lost in buggy stridor.

"I don't believe that." Claire let her hand trail in the water, wondering if piranhas and snakes stocked the river, if the authenticity of the environment extended that far. "I don't believe any of this was planned. Not to that extent. I think it's all nothing more than a sick, elaborate accident."

He considered her words, the oars resting, crossed, in his lap. "You must believe that some of this was designed. You must remember designing it. Or designing yourself, I mean: what you look like, how you think. I've forgotten quite a bit, but I do remember that."

A fish nibbled Claire's finger. She lifted her hand, shook off the drops.

"I don't mean the world itself," Claire said. "I mean about what's happened to us. The way we live. Something's gone wrong. I don't think it was intentional."

Byron nodded. "Apocalypse."

"Plague. Asteroids. Nuclear holocaust."

"Economic collapse. Political unrest." He joined in her joking tone. "Or only a poorly managed bankruptcy. And somewhere out in the Nevada desert, sealed away in a solar-powered server farm, a rack of computers sits, grinding away at a futile simulation, on and on through the lonely centuries."

She waved away his glib improvisation, accidentally spraying his face with drops.

"I don't think that's what happened. Do you know what I think? I think we've simply been forgotten."

He smiled, nodding in time with the rocking boat.

"That's all," Claire said. "They made us, they used us for a while, they lost interest. They kept their accounts, or their subscriptions, or whatever, but they stopped paying attention. They don't care if we find love. They don't care about anything we do."

"And yet." Byron resumed rowing. "If they knew . . ."

"What?" Claire was irritated at the portentous way he trailed off. "If they knew what?"

He glanced behind him, checking their direction. "Oh, you know. If they knew how wonderfully independent we've become. How clever and shy. How suave in the art of romance. How proficient at avoiding any kind of commitment."

"In other words," said Claire, "just like them."

Byron rested a moment, the oars under his chin. "Meet with me again. Say the words."

Claire looked away from him, down into the water, the black oblivion sliding by. "This can't go anywhere. You know it can't. It can't become anything. We can't become anything."

"I don't care. Say the words."

"It can never be more than a casual thing."

"All well and good. Say the words."

"It can only make us unhappy. We can only go so far. We'll reach a certain point, and we'll realize we're done. Finished. Forever incomplete. It will be like picking up a delicious piece of food and seeing it vanish on our tongues."

"Brilliant analogy. Say the words."

"I want to see you," Claire said, tears in her eyes. "I want to see you, again and again."

(And wondering, even while she said this, and not for the first time, why the people who built this terrible world had left so much out, had omitted taste, had excised smell, had eliminated pleasure, drunkenness, pain, death, injury, age, and appetite, but had left in these two strange and unpleasant details, had endowed every person with sweat and tears.)

*We're not like them*, Claire thought, as Byron, letting the oars ride idle, leaned across the boat. *We look like them, we have their habits, their interests, their hopes, even some of their memories. We think and feel like them, whether they know it or not. We can even, in some ways, make love like them. But we're not like them, not really, and it all comes down to this: whatever we desire, whatever we do, we'll never know the difference between a drink and a kiss.*

When Byron's lips met hers, a precise and dry contact, it surprised Claire, momentarily, that neither of them disappeared.

4

**H**ow many times did they meet? Claire didn't bother to count. They saw each other in hunting lodges, English gardens, an undersea city, the surface of Mars, the gondola of a transatlantic blimp. To Claire, all locations were frames for Byron's figure. More than his body, more than the frankness of his smile, she began to love the touch of his hand, the way it overlaid hers on the rails of ocean liners, felt for hers, casually, in the press of theater lobbies. He was a man who coveted contact: half-conscious, constant. She loved his need to know she was there.

And still, he was something much stranger than a lover. In this world, there was one sure pleasure, and this was the pleasure Byron offered. Talk.

"What was it?" she asked him, one night as they mingled, duded out in rodeo getups, with the square-dancing clientele of a cowboy bar. "In New Orleans, that night, you sought me out. What was it that made you notice me?"

Byron didn't hesitate. "A question," he said.

"And what question was that?"

He pointed at their knee-slapping environs: the mechanical bull, the rawhide trimmings, the Stetsons and string ties and silver piping. "Our lives are a joke. Anyone can see that, I guess I wondered why you weren't laughing."

She laughed then, making herself sad with the sound.

Other evenings they shouted over a buzz of airplane propellers, under the bump of disco, across the chill seats of a climbing chairlift. But always they talked,

endlessly, oblivious to their surroundings, one conversation encompassing a thousand fragmented days.

"And you?" Byron spoke between sips of drinks that vanished like snow under his breath. "What did you see in me?"

Claire smiled, silent. She knew he knew the answer.

In the private bedrooms of an endlessly itinerant courtship, they never stripped off their clothes, never attempted the clumsy gyrations that passed for sex. They lounged in lazy proximity, fully clothed. Claire felt no reserve. With Byron, there was no question of making a match. His worn, mature face, sadly humorous, told her he'd put all such questions behind him.

"Anyway, it doesn't matter." He often held her hand, rubbing her thumb with his. "You say we've been forgotten. Some people say we've been abandoned. But what would it change, if we knew the truth? Things would be the same whatever happened in—well, in what I suppose we have to call 'the real world.'"

"Would they?" Claire focused on the confidence with which he spoke, the weary conviction of his old, wise voice.

Byron narrowed his eyes. "That's what I believe. We were made to live this way. We were never meant to find a match." He lifted himself on an elbow, gazing across the folds and drapes of the bedroom, the swaddling silk abundance of an ancient four-poster bed. "Look, the idea is we're proxies, right? Our originals, they got tired of looking for love. The uncertainty, the effort. So they made us. Poured in their memories and hopes, built this playground, so we could do what they didn't want to do, keep mixing and mingling and trying and failing. And one day we would find a match, and that would be it, our work would be done, and we would be canceled, deleted, for them to take over."

Claire lay still, withholding comment. There was a real thrill, she thought, in hearing things put so plainly, the cynical logic of their lives.

"But what if," Byron said, "that wasn't ever their real goal? What if they never wanted love at all? What if they only *wanted* to want it—wanted, in some way, to be *able* to want it? You remember how things were. We all remember at least some of that world. Was it ever such a loving place? The overcrowding. The overwork. It was so much better to be alone. What if this place only exists . . . what if *we* only exist to . . . to stand in for something, represent something, some kind of half-remembered dream? A dream our originals had mostly given up, but still felt, in some way, they ought to be dreaming?"

"Oh, God," Claire sighed.

"I'm sorry." Byron touched the backs of the hands she held over her face. "I shouldn't be talking like this."

"It's not that." She dropped her hands. "It's that it's all so wrong. You make it sound even more hopeless than it is."

"I don't believe it's hopeless."

"But if we're only here to go on some futile, empty search . . . I mean, why?" She sat up, holding fistfuls of sheet. "We're a joke twice over. A fake of a fake. Even if they didn't know we would. . . ." She was garbling her remonstrations, caught, as usual, between religion and philosophy. "I mean, why would anyone put us *through* this?"

He lay back, staring, pale as an empty screen. "Claire, what if I told you we could make a match?"

She held a pillow to her breast, suddenly cold, wondering if it was the kind of cold a real human being would feel. "Don't say that."

"I mean it."

"Don't say it. You know what will happen. I hate this world. I hate the people who made it. I hate myself, whatever I am, and I hate the woman I used to be. But I'm not ready to—"

"I'm not saying you have to."

She watched him with bared teeth, projecting all her fear onto his alarmingly calm face.

"I'm saying we can do it." Byron's eyes were like red wine, dark and flickering. "We can do it without giving anything up. We can commit to each other, forever, without being deleted or vanishing. We can declare our love, and no one will ever know, or interfere, or steal it away from us."

"That's impossible." She bit her tongue until she could almost remember what it felt like to feel pain.

"It's entirely possible."

"That's not how things work."

"You forget. I told you once, long ago, I have an interest in virtual environments. Or anyway, I used to. I know exactly how this world works."

She sat up, seeing excitement shining from him via those two bright giveaways, perspiration and tears.

"Do you remember, Claire? New Orleans?" He sat up, reaching for her hands. "There's a dock, there, that runs far out into the river. A ferry sets out from it, every night, toward the far shore. Each night, it leaves a second earlier; each time, it travels a second farther. One time out of a thousand, it reaches the far bank. If we're on that ferry when it touches land, we'll be on a border, a threshold, a place where the rules no longer apply. When the scenario resets, we'll be left behind. We can live there forever, or however long the world lasts."

"Claire." He insisted, at that moment, on holding both her hands, as if needing to be doubly sure she was there. "Nothing is entirely random. I know you don't keep count of the nights, but I do. I've been tracking the evenings, observing the patterns. And I've been looking for a person to take along with me, one person to share with me the rest of time. You are that person. Say the words. In five nights, we will meet again, at a dinner party in New Orleans. The ferry will set out at eleven-forty. Come with me, Claire. Be with me on that deck. Step with me, together, out of this world."

She saw her fists vanish inside his. The midnight chime would sound in a moment, and with it new crowds, new possibilities, new glories of music and excitement would be conjured out of the unending night. Could she leave all that behind, stand with this man forever on the shore of one permanent land? Together, they would walk, never changing, down unchanging streets, where dance music streamed out of immortal cafés, where orchids stood, never wilting, on the sills of bedroom windows, silvered by a moon that never set. But these would be their cafés, their moon, their orchids, and if there was no way to know how long it might last, still, they would own together that unmeasured quantity of time, laying claim to one house with its scattershot furniture, and never live in fear of the midnight chime.

Already, tonight, that chime was sounding, jangling a warning across the sky. But Claire had time to speak the charmed words.

"I want to see you again."

5

Around the long dining table in the house in New Orleans, Civil War colonels gazed out of their walnut frames. The candles were at work, scattering reflections, and the antique chairs creaked with conviviality. Claire sat next to Byron, intent on the French-style clock. Dinner was done, the plates cleared away, and two dozen puddings quivered in two dozen china bowls.



"Pudding," sighed a ravishing girl, dressed, like many, for the setting, in the rustling skirts of a southern belle. "You see what I mean? It's all so random. Radicchio salads, oxtail for dinner, and they serve us chocolate pudding for dessert."

Claire, seated across the table, reflected that this was the last time she'd ever have to have this conversation.

Twenty-four spoons dipped and rose. Twenty-four servings of pudding vanished, dispelled by the touch of twenty-four tongues.

When the party dispersed, Byron took Claire's hand. At the door, he bent to her ear, and she felt his warm whisper. "Three hours. Stay close."

They stepped out onto the porch. And Byron disappeared.

Claire spun in confusion. The porch, the house, the whole scene was gone. She stood on a dance floor, surrounded by feet that stamped and swung and kicked up a lamplit dust. The dim air shivered to the scratch of a fiddle. There was absolutely no sign of Byron.

Trying to get her bearings, Claire clutched at the jostling shoulders. She spotted a door and wriggled toward it. The energy of the dance, like a bustling machine, ejected her into humid air.

Claire stumbled down three wooden steps. Looking back, she recognized the roadside bar where she'd sat with Byron on their first meeting, several thousand nights ago.

What had happened? Claire staggered toward the road. The moon made iron of the land, steel of the river, and the lights of town were far away.

The ferry! It was only a few miles from here, no more than a two-hour walk. Claire thought she could make it, if she hurried.

She'd walked a quarter of an hour when a vintage roadster, roaring from behind, froze her like a criminal in a flood of light. Byron pushed open the door.

"Get in."

Claire hurried to the passenger side, jumped into the leather seat. Byron stomped the gas, and the wheels of the car barked on gravel.

"It's glitching." Byron leaned forward as he drove. "The environment. The counters are resetting. Like I said, we're in a liminal place, tonight. The rules are temporarily breaking down. Look."

He tapped his wrist, where a watch glimmered faintly.

"It's after ten," Byron said. "It's been over an hour since I saw you. We've lost a chunk of time, and I'm afraid—damn." He swerved, almost losing control, as he caught sight of something down the road.

Twisting in her seat, Claire saw the roadside shack, the one she'd just exited, sliding by.

Byron cursed and pushed down on the gas. They rattled up to the old roadster's maximum speed, forty, fifty. Swamps, river, and road flowed by. The shack passed again, again, again.

"All right, that does it." Byron braked so hard, Claire nearly whacked her head on the dashboard. He fussed with the gearshift and twisted in his seat, wrapping an arm around her headrest.

"What's happening?" she asked.

"Can't you tell? We're looping."

"But what are you doing?"

"Desperate problems call for desperate measures." Byron squinted through the tiny rear windshield. "The way I see it, if you can't hit fast-forward, hit rewind."

The car jerked backward.

And car and road and Byron all screeched out of being, and Claire found herself sitting at a café table, alone, deep in the tipsy commotion of town.

She jumped up, knocking over her chair.

Once again, Byron was nowhere to be seen.

Claire cursed, turned in a full circle, cursed again. A passing man in a bowler hat picked up her chair, righted it, and touched his hat.

"Crazy, eh? All these jumps?" He straightened his jacket with a roll of his shoulders, looking up at the sky, as if expecting heaven to crack.

"But what do we do?" Claire gasped. "How do we stop it?"

The man in the bowler hat smiled and shrugged. "Nothing *to* do, I guess. Except play along."

Pantomiming, he grabbed a nearby barber pole, swung himself through an open door, and promptly, like a magician's rabbit, blinked out of existence.

Partiers ran past, giggling and tripping, stretching their faces in merry alarm, like people caught in a thunderstorm. Firefly-like, they meandered through doorways, laughing as they winked in and out of existence. In a world of rules and repetition, Claire had long since observed, childlike chaos greeted any variation in routine.

*But what do I do?* Claire ducked into a drugstore entrance. *What can I do, what should I do?* She did her best to steady her mind, analyze the situation. The jumps, the cuts, the vanishings and reappearances—they seemed to happen at moments of transition: entries and exits, sudden moves. If she found some way to game the system . . .

Turning, Claire jumped through the drugstore door. And again, and again, and again, jump after jump. On her fifteenth jump, the trick worked, the environment glitched. Claire tumbled into a banquet hall, crashing into a tray-bearing waiter, scattering scallops and champagne flutes. "Sorry, sorry . . ." Dashing toward the hall doors, Claire tried again. Another round of jumping propelled her into a rowboat, somewhere out in the stinking bayou. Gators splashed and rolled in the muck, grunting and hissing as they fled from her intrusion. Claire jumped into the water and ducked under, sinking her feet in the creamy ooze. She kicked, launching herself up into the air—

And found herself, sodden with mud, near the bank of the river, back in town.

How many times would she have to do this? Searching the bank, Claire saw no promising doors. She threw herself into the river three more times. The third time, she emerged in a backyard swimming pool.

And so, through portals and windows, through falls and reversals, Claire skipped her way through the liminal evening, traversing a lottery of locations, careening in her soaked dress and dirty hair through car seats, lawn parties, gardens and gazebos, bedrooms where couples lay twined in dim beds. Sometimes she thought she saw Byron, hurrying through a downtown doorway or diving over the rail of a riverboat, moving in his own Lewis Carroll quest through the evening's hidden rabbit holes. Mostly, she saw hundreds of other adventurers, laughing people who leaped and jostled through doorways, running irreverent races in the night.

At last, Claire stumbled out of a bait shop onto the dock, the ramshackle fishing shacks hung with buoys, the long span of planks laid out like a ruler to measure the expanse of her few remaining minutes—and there was the ferry, resting on the churn of its diesel engine, bearing Byron toward the far shore.

"Claire," he shouted over the water, and added something she couldn't hear.

Was it a freak of the fracturing environment, some cruel new distortion, that made the dock seem to lengthen as Claire ran? Was it a new break in that hopelessly broken world that made the planks passing under her feet seem infinite? By the time she came to the end of the dock, Byron and the ferry were in the middle of the river, and his call carried faintly down the boat's fading wake.

"Jump!"

Was he crazy? The distance was far too wide to swim.

"Claire, I'm serious, jump!"

And now, Claire understood: if it had worked before . . . a thousand-in-one chance, perhaps . . .

Far across the river, Byron was waving. Claire looked into the water. Briefly, she hesitated. And this was the moment she would think back to, a thousand times and a thousand again: this instant when she paused and held back, wondering how badly she wanted to spend eternity in one home, one world, with one man.

The next instant, she had flung herself headfirst into the water. And perhaps this world made more sense than Claire thought. Perhaps the designers had known what they were doing after all. Because of all the cracks and rabbit holes in the environment, of all the possible locations in which she might emerge—

She was splashing, floundering, on the far side of the river, and the ferry was a few yards away.

Claire thrashed at the water, clawing her way forward, as the first of three chimes sounded over the water.

She'd forgotten to kick off her shoes. Her skirt wrapped her legs. She couldn't fall short, not after trying so hard, chasing potential romances down the bottomless vortex of an artificial night.

The second chime made silver shivers pass across the water.

So close. Claire tore at the waves, glimpsing, between the splashing of her arms, Byron calling from the ferry, leaning over the rail.

As she gave a last, desperate swipe, the third chime rang in the coming of midnight, the sound reminding Claire, as it always would, of the teasing jingle of a set of keys.

Around bright tables, under lamps and music, the partygoers had gathered, to mingle and murmur and comment on the food. So much beauty to be savored, so much variety: so many men and women with whom to flirt and quip and dance away the hours of an endlessly eventful evening. And after tonight, there would be more, and still more—men and women to be savored, sipped, dispelled.

If anyone noticed the woman who moved among them, searching the corners of crowded rooms; if anyone met her at the end of her dock, looking across the starlit water; if anyone heard her calling one name across the waves and throbbing music, they soon moved away. The party was just beginning, lively with romance, and the nights ahead were crowded with the smiles of unknown lovers. ○

**Kelly Robson spent most of her teenage years hanging out at the drugstore waiting for new issues of *Asimov's*. She's a graduate of the Taos Toolbox writing workshop, where she studied with her heroes Connie Willis and Walter Jon Williams. The author's first fiction sales have appeared this year at *Tor.com*, *Clarkesworld*, and in the anthology *New Canadian Noir*. She lives in Toronto with her wife, SF writer A.M. Dellamonica. Kelly's first story for our magazine reveals the excruciating challenges that face the . . .**

# TWO-YEAR MAN

Kelly Robson

**G**etting the baby through security was easy. Mikkel had been smuggling food out of the lab for years. He'd long since learned how to trick the guards.

Mikkel had never been smart, but the guards were four-year men and that meant they were lazy. If he put something good at the top of his lunch pail at the end of his shift, the guards would grab it and never dig deeper. Mikkel let them have the half-eaten boxes of sooty chocolate truffles and stale pastries, but always took something home for Anna.

Most days it was only wrinkled apples and hard oranges, soured milk, damp sugar packets and old teabags. But sometimes he would find something good. Once he'd found a working media player at the bottom of the garbage bin in the eight-year man's office. He had been so sure the guards would find it and accuse him of stealing that he'd almost tossed it in the incinerator. But he'd distracted the guards with some water-stained skin magazines from the six-year men's shower room and brought that media player home to Anna.

She traded it for a pair of space heaters and ten kilos of good flour. They had dumplings for months.

The baby was the best thing he'd ever found. And she was such a good girl—quiet and still. Mikkel had taken a few minutes to hold her in the warmth beside the incinerator, cuddling her close and listening to the gobble and clack of her strange yellow beak. He swaddled her tightly in clean rags, taking care to wrap her pudgy hands separately so she couldn't rake her talons across that sweet pink baby belly. Then he put her in the bottom of his plastic lunch pail, layered a clean pair of janitor's coveralls over her, and topped the pail with a box of day-old pastries he'd found in the six-year men's lounge.

"Apple strudel," grunted Hermann, the four-year man in charge of the early morning guard shift. "Those pasty scientists don't know good eats. Imagine leaving strudel to sit."

"Cafe Sluka has the best strudel in Vienna, so everyone says," Mikkel said as he passed through the security gate.

"Like you'd know, moron. Wouldn't let you through the door."

Mikkel ducked his head and kept his eyes on the floor. "I heated them in the microwave for you."

He rushed out into the grey winter light as the guards munched warm strudel.

Mikkel checked the baby as soon as he rounded the corner, and then kept checking her every few minutes on the way home. He was careful to make sure nobody saw. But the streetcars were nearly empty in the early morning, and nobody would find it strange to see a two-year man poking his nose in his lunch pail.

The baby was quiet and good. Anna would be so pleased. The thought kept him warm all the way home.

Anna was not pleased.

When he showed her the baby she sat right down on the floor. She didn't say anything—just opened and closed her mouth for a minute. Mikkel crouched at her side and waited.

"Did anyone see you take it?" she asked, squeezing his hand hard, like she always did when she wanted him to pay attention.

"No, sweetheart."

"Good. Now listen hard. We can't keep it. Do you understand?"

"She needs a mother," Mikkel said.

"You're going to take her back to the lab. Then forget this ever happened."

Anna's voice carried an edge Mikkel had never heard before. He turned away and gently lifted the baby out of the pail. She was quivering with hunger. He knew how that felt.

"She needs food," he said. "Is there any milk left, sweetheart?"

"It's no use, Mikkel. She's going to die anyway."

"We can help her."

"The beak is a bad taint. If she were healthy they would have kept her. Sent her to a crèche."

"She's strong." Mikkel loosened the rags. The baby snuffled and her sharp blue tongue protruded from the pale beak. "See? Fat and healthy."

"She can't breathe."

"She needs us." Why didn't Anna see that? It was so simple.

"You can take her back tonight."

"I can't. My lunch pail goes through the X-ray machine. The guards would see."

If Anna could hold the baby, she would understand. Mikkel pressed the baby to Anna's chest. She scrambled backward so fast she banged her head on the door. Then she stood and straightened her maid's uniform with shaking hands.

"I have to go. I can't be late again." She pulled on her coat and lunged out the door, then turned and reached out. For a moment he thought she was reaching for the baby and he began to smile. But she just squeezed his hand again, hard.

"You have to take care of this, Mikkel," she said. "It's not right. She's not ours. We aren't keeping her."

Mikkel nodded. "See you tonight."

The only thing in the fridge was a bowl of cold stew. They hadn't had milk for days. But Mikkel's breakfast sat on the kitchen table covered with a folded towel. The scrambled egg was still steaming.

Mikkel put a bit of egg in the palm of his hand and blew on it. The baby's eyes widened and she squirmed. She reached for his hand. Talons raked his wrist and her beak yawned wide. A blue frill edged with red and yellow quivered at the back of her throat.

"Does that smell good? I don't think a little will hurt."

He fed her the egg bit by bit. She gobbled it down, greedy as a baby bird. Then he watched her fall asleep while he sipped his cold coffee.

Mikkel wet a paper napkin and cleaned the fine film of mucus from the tiny nostrils on either side of her beak. They were too small, but she could breathe just fine through her mouth. She couldn't cry, though, she just snuffled and panted. And the beak was heavy. It dragged her head to the side.

She was dirty, smeared with blood from the incineration bin. Her fine black hair was pasted down with a hard scum that smelled like glue. She needed a bath, and warm clothes, and diapers. Also something to cover her hands. He would have to trim the points off her talons.

He held her until she woke. Then he brought both space heaters from the bedroom and turned them on high while he bathed her in the kitchen sink. It was awkward and messy and took nearly two hours. She snuffled hard the whole time, but once he'd dried her and wrapped her in towels she quieted. He propped her up on the kitchen table. She watched him mop the kitchen floor, her bright brown eyes following his every move.

When the kitchen was clean he fetched a half-empty bottle of French soap he'd scavenged from the lab, wrapped the baby up tightly against the cold, and sat on the back stairs waiting for Hyam to come trotting out of his apartment for a smoke.

"What's this?" Hyam said. "I didn't know Anna was expecting."

"She wasn't," Mikkel tugged the towel aside.

"Huh," said Hyam. "That's no natural taint. Can it breathe?"

"She's hungry," Mikkel gave him the bottle of soap.

"Hungry, huh?" Hyam sniffed the bottle. "What do you need?"

"Eggs and milk. Clothes and diapers. Mittens, if you can spare some."

"I never seen a taint like that. She's not a natural creature," Hyam took a long drag on his cigarette and blew it over his shoulder, away from the baby. "You work in that lab, right?"

"Yes."

Hyam examined the glowing coal at the end of his cigarette.

"What did Anna say when you brought trouble home?"

Mikkel shrugged.

"Did the neighbors hear anything through the walls?"

"No."

"Keep it that way," Hyam spoke slowly. "Keep this quiet, Mikkel, you hear me? Keep it close. If anyone asks, you tell them Anna birthed that baby."

Mikkel nodded.

Hyam pointed with his cigarette, emphasizing every word. "If the wrong person finds out, the whole neighborhood will talk. Then you'll see real trouble. Four-year men tromping through the building, breaking things, replaying the good old days in the colonies. They like nothing better. Don't you bring that down on your neighbors."

Mikkel nodded.

"My wife will like the soap," Hyam ground out his cigarette and ran up the stairs.

"There now," Mikkel said. The baby gazed up at him and clacked her beak. "Who says two-year men are good for nothing?"

Four-year men said it all the time. They were everywhere, flashing their regimental badges and slapping the backs of their old soldier friends. They banded together in loud bragging packs that crowded humble folks off busses and streetcars, out of shops and cafés, forcing everyone to give way or get pushed aside.

Six-year men probably said it too, but Mikkel had never talked to one. He saw them working late at the lab sometimes, but they lived in another world—a world filled with sports cars and private clubs. And who knew what eight-year men said? Mikkel cleaned an eight-year man's office every night, but he'd only ever seen them in movies.

Nobody made movies about two-year men. They said four-year men had honor, six-year men had responsibility, and eight-year men had glory. Two-year men had nothing but shame. But it wasn't true. Hyam said so.

Two-year men had families—parents, grandparents, uncles and aunts, brothers and sisters, children and wives who depended on them. They had jobs, humble jobs but important all the same. Without two-year men, who would grub away the garbage, crawl the sewers, lay the carpets, clean the chimneys, fix the roofs? Without two-year men there would be nobody to bring in the harvest—no sweet strawberries or rich wines. And most important, Hyam said, without two-year men there would be nobody parents could point at and say to their sons, "Don't be like him."

Hyam was smart. He could have been a four-year man easy, even a six-year man. But he was a Jew and that meant a two-year man, almost always. Gypsies too, and Hutterites, and pacifists. Men who couldn't walk or talk. Even blind men. All drafted and sent to fight and die in the colonies for two years, and then sent home to live in shame while the four-year men fought on. Fought to survive and come home with honor.

Hyam returned swinging a plastic bag in one hand and a carton of eggs in the other. A bottle of milk was tucked under his arm.

"This is mostly diapers," he said, brandishing the bag. "You'll never have too many. We spend more on laundry than we do on food."

"I can wash them by hand."

"No you can't, take my word for it." Hyam laughed and ran up the stairs. "Welcome to fatherhood, Mikkel. You're a family man now."

Mikkel laid the baby on the bed. He diapered and dressed the baby, and then trimmed her talons with Anna's nail scissors. He fitted a sock over each of the baby's hands and pinned them to her sleeves. Then he wedged Anna's pillow between the bed and the wall, tucked the baby in his arms, and fell into sleep.

He woke to the clacking of the baby's beak. She yawned, showing her colorful throat frill. He cupped his hand over her skull and breathed in the milky scent of her skin.

"Let's get you fed before Mama comes home," he said.

He warmed milk in the soup pot. A baby needed a bottle when it didn't have a breast, he knew, but his baby—his clever little girl—held her beak wide and let him tip the milk into her, teaspoon by teaspoon. She swallowed greedily and then demanded more. She ate so fast he could probably just pour the milk in a steady stream down her throat. But milk was too expensive to risk spitting up all over the kitchen floor.

"Mikkel," said Anna.

She was standing in the doorway in her scarf and coat. Mikkel gathered the baby in his arms and greeted Anna with a kiss like he always did. Her cheek was cold and red.

"How was your day?" he asked. The baby looked from him to Anna and clacked her beak.

Anna wouldn't look at the baby. "I was late. I got on the wrong bus at the interchange and had to backtrack. Mrs. Spiven says one more time and that's it for me."

"You can get another job. A better one. Closer to home."

"Maybe. Probably not."

Anna rinsed the soup pot, scooped cold stew into it and set it on the stove. She was still in her coat and hat. The baby reached out and hooked Anna's red mitten out of her pocket with the trimmed talon poking through the thin grey knit sock. The mitten dangled from the baby's hand. Anna ignored it.

"Sweetheart, take off your coat," Mikkel said.

"I'm cold," she said. She struck a match and lit the burner.



Mikkel gently pulled on her elbow. She resisted for a moment and then turned. Her face was flushed.

"Sweetheart, look," he said. Anna dropped her gaze to the floor. The baby clacked her beak and yawned. "I thought we could name her after your mother."

Anna turned away and stirred the stew. "That's crazy. I told you we're not keeping her."

"She has your eyes."

The spoon clattered to the floor. Anna swayed. Her elbow hit the pot handle and it tipped. Mikkel steadied it and shut off the flame.

Anna yanked back her chair and fell into it. She thrust her head in her hands for a moment and then sat back. Her eyes were cold and narrow, her voice tight. "Why would you say that? Don't say that."

Why couldn't Anna see? She was smart. So much smarter than him. And he could see it so easily.

Mikkel searched for the right words. "Your eggs. Where did they go?"

"It doesn't matter. I needed money so I sold my ovaries. That's the end of it."

Mikkel ran his fingers over his wife's chapped hand, felt the calluses on her palm. He would tell her the awful things, and then she would understand.

"I know where your eggs went. I see them in the tanks every night. And in the labs. In the incinerator. I mop their blood off the floor."

Anna's jaw clenched. He could tell she was biting the inside of her cheek. "Mikkel. Lots of women sell their ovaries. Thousands of women. They could be anyone's eggs."

Mikkel shook his head. "This is your baby. I know it."

"You don't know anything. What proof do you have? None." She laughed once, a barking sound. "And it doesn't matter anyway because we're not keeping her. People will find out and take her away. Arrest you and me both, probably. At the very least, we'd lose our jobs. Do you want us to live in the street?"

"We can tell people you birthed her."

"With that beak?"

Mikkel shrugged. "It happens."

Anna's flushed face turned a brighter shade of red. She was trying not to cry. He ached to squeeze her to his chest. She would just pull away, though. Anna would never let him hold her when she cried.

They ate in silence. Mikkel watched the baby sleep on the table between them. Her soft cheek was chubby as any child's, but it broadened and dimpled as it met the beak, the skin thinning and hardening like a fingernail. The baby snuffled and snot bubbled from one of her tiny nostrils. Mikkel wiped it away with the tip of his finger.

Mikkel checked the clock as Anna gathered the dishes and filled the sink. Only a few minutes before he had to leave for the lab. He snuggled the baby close. Her eyelids fluttered. The delicate eyelash fringes were glued together with mucus.

"You have to go," said Anna. She put his lunch pail on the table.

"In a minute," he said. Mikkel dipped his napkin in his water glass and wiped the baby's eyes.

Anna leaned on the edge of the sink. "Do you know why I married you, Mikkel?"

He sat back, startled. Anna didn't usually talk like this. He had wondered, often. Anna could have done better. Married a smart man, a four-year man, even.

"Will you tell me, sweetheart?"

"I married you because you said it didn't matter. I explained I could never have babies and you still wanted me—"

"Of course I want you."

"I told you why I was barren. Why I sold my ovaries. Do you remember?"

"Your mother was sick. You needed the money."

"Yes. But I also said it was easy because I never wanted babies. I never wanted to be a mother." She leaned forward and gripped his shoulders. "I still don't. Take her back to the lab."

Mikkel stood. He kissed the baby's forehead. Then he put the baby in Anna's arms. "Her name is Maria," he said. "After your mother."

Mikkel was tired walking up the street toward the bus stop. But that was fatherhood. He would get used to it. Anna would get used to being a mother too. He was sure. All women did.

The thought of his wife and child kept him warm all the way to the Josefstadt streetcar station. Then a four-year man shoved an elbow in his ribs and spat on his coat. Mikkel watched the spittle freeze and turn white. He stood shivering at the edge of the curb, taking care to stay out of everyone's way.

Mikkel relied on Anna's kindness, sure she would always do the right thing, the generous thing. She was good to him, good to everyone. For ten years she had taken care of him, cooking, cleaning, making their two rooms into a home. In return he did his best to fill those two rooms with love. It was all he could do.

As he stood in the wind at the edge of the station, doubts began to creep in with the cold. Why would Anna say she didn't want to be a mother? It couldn't be true. They lived surrounded by families—happy, noisy, families—three and four, even five generations all living together. Healthy children, happy mothers, proud fathers. Aunts, uncles, cousins, grandparents. Family everywhere, but he and Anna only had each other.

Anna must regret being barren. Some part of her, buried deep, must long for children. But she said she didn't, and if it was true, then something in her must be broken.

He had seen broken men during his two years in the colonies, men with whole bodies and broken minds, who said crazy things and hurt themselves, hurt others. Anna could never be like them.

But his doubts grew with every step further from home. By the time he could see the lights of the lab glowing through the falling snow, the doubts were clawing at him. He imagined coming home in the morning to find Anna alone, ready to leave for work, pretending Maria had never been there.

He turned back home, but then one of the four-year men shouted at him through the glass doors.

"You're late, you stupid ass."

Mikkel watched his lunch pail slide through the x-ray. The guards ran it back and forth through the machine, just to waste time. Mikkel had to run to the time clock. He stamped his card just as it clicked over to eight.

Normally Mikkel loved the rhythm of work, the scrubbing, mopping, wiping. Even cleaning toilets brought its own reward. He knew the drip of every tap, every scratch on the porcelain and crack in the tiles. He took an inventory of them night by night as he cleaned, taking his time, double-checking every corner for dust, scanning every window and mirror for streaks, even getting down on his knees to swab behind the toilets, scrubbing away any hint of mildew from the grout, finding all the little nooks and crannies.

Tonight he rushed through his work, but each room felt like it took twice as long as usual. He kept checking the time, sure he was falling behind. Thinking about Anna dragged on the clock hands. Worrying made him forgetful, too. He left the four-year men's bathroom with no memory of cleaning it. He had to go back and check just to be sure.

In the tank room he began to feel better. He loved the noise of the tanks—the bubbling pumps and thumping motors. Here he always took his time, no matter what. It was his favorite place in the whole building. He wasn't supposed to touch the tanks, but he always took a few extra minutes to polish the steel and glass and check the hose seals. He even tightened the bolts that fixed each heavy tank to the floor and ceiling.

The tinted glass was just transparent enough to show the babies floating inside. Mikkel watched them grow night by night. He kept a special rag just for polishing the tanks, a soft chamois that a six-year man had discarded years ago. It was specially made for precious things—the logo of a sports car company had long since worn off. He always polished the glass with long slow caressing strokes, sure the babies could feel his touch.

Two of the tanks were empty. Mikkel polished them too, in their turn, making them perfect for the next baby. Maria's tank was in the last row on the far side of the room, two from the end. It was refilled but the baby was still too small to see, just a thin filament dangling from the fleshy organ at the top of the tank.

"Your sister says hello," Mikkel whispered. "Her mama and papa are proud of her. Maria is going to grow up smart and strong."

The filament twisted and drifted in the fluid. Mikkel watched it for a few minutes, wondering what Anna and Maria were doing at that moment. He imagined them curled up in bed, skin to skin, the baby's beak tucked under Anna's chin. He squeezed his eyes tight and held the image in his mind, as if he could make it real just by wanting it so badly. And for a few minutes it did feel real, an illusion supported by the comforting tank room sounds.

But he couldn't stay there. As he lugged his bins and pails upstairs to the offices, worry began gnawing at him again.

Women abandoned babies all the time. The mothers and grandmothers in the tenement always had a story to tell about some poor baby left out in the cold by a heartless and unnatural mother. Once, when they were first married, Anna told the woman next door that people did desperate things when they had run out of options. That neighbor still wouldn't speak to her, years later.

What if Anna bundled Maria up and put her on the steps of some six-year man's house? Or left her at the train station?

He could see Maria now, tucked into their big kitchen pail and covered with a towel. He could see Anna, her face covered by her red scarf, drop the pail on the edge of the Ostbahnhof express platform and walk away.

No. His Anna would never do that. Never. He wouldn't think about it anymore. He would pay attention to his work.

On the wide oak table in the eight-year man's office he found four peach pastries, their brandy jam dried to a crust. The bakery box was crushed in the garbage bin. When he was done cleaning the office he re-folded it as best he could and put the pastries back inside. Four was good luck. One for each of the guards. Then he made his way down to the basement.

The incinerator was an iron maw in a brick wall. For years, Mikkel had walked down those concrete steps in the hot red light of its stare to find the sanitary disposal bin bloody but empty, its contents dumped by one of the four-year men who assisted in the labs. Back then, all Mikkel had to do was toss his garbage bags in the incinerator, let them burn down, then switch off the gas, bleach the bin, hose the floor, and mop everything dry.

But now there was a new eight-year man in charge, and Mikkel had to start the incinerator and empty the disposal bin himself.

The light from the overhead bulb was barely bright enough to show the trail of blood snaking from the bin to the drain. Mikkel felt his way to the control panel and began the tricky process of firing up the incinerator. The gas dial was stiff and the pilot light button was loose. He pressed it over and over again, trying to find the right angle on the firing pin. When the incinerator finally blasted to life Mikkel had sweated through his coveralls.

The room lit up with the glow from the incinerator window and he could finally see into the bin. The top layer of bags dripped fluid tinged red and yellow. Most were double- and even triple-bagged, tied with tight knots. But they were torn and leaked. Sharp edges inside the disposal chute hooked and tore on the way down.

Maria had been single-bagged. Her beak had pierced the plastic, ripped it wide enough for her to breathe. And she had landed at the far edge of the bin, mostly upright. If she had been face down or if another bag had fallen on top of her she could have suffocated.

Mikkel wrenched open the incinerator door and began emptying the bin, carefully picking up each wet bag and throwing it far into the furnace. Some bags were tiny, just a few glass dishes and a smear of wax. One bag was filled with glass plates that spilled through a tear and shattered at his feet. The biggest bags held clear fluid that burst across the back wall of the incinerator with a hot blast that smelled like meat. He set the bloodiest bags aside, put them down safe on the pitted concrete floor, away from the glass.

As the bin emptied, a pit began to form in Mikkel's stomach. He turned away and kicked through the glass, pacing along the far wall where it was a little cooler.

The tank room had two empty tanks. He'd polished them just a few hours ago, but he hadn't paid much attention. He'd been thinking about Anna and Maria.

He knew those babies, the ones who had been in the empty tanks. One was a little boy with a thick, stocky body covered in fine hair. The other was a tiny girl with four arms that ended in stubby knobs. Where were they now? Had they been sent away to the crèche or put down the chute? If they'd gone down the chute they would be in the bin, waiting for him to throw them into the fire with the blood and tank fluid. With all of the failed experiments.

Mikkel picked up a bloody bag and hefted it by the seal, feeling the contents with his other hand. The fluid sloshed heavily and clung to the sides of the bag like syrup. There were a few solid pieces inside the bag, but nothing big enough to be a baby, not even a tiny one. He threw it into the incinerator and picked up the other bag.

Maria would probably be gone when he got home; he understood that now. The thought made a hollow in his chest, a Maria-shaped hole where he'd cuddled her to his heart. But if Maria was gone, if Anna had taken her to the train station and abandoned her, that only meant Anna needed time. He would give her time. He would be patient, like she always was with him, and gentle too. What was broken in her would heal and she would love their children. She would be a wonderful mother. Maybe not today, but soon.

He would find more babies. Night after night he'd search for them. Maria had survived, so others would survive, too, and he would find them. Find every baby and bring them all home until Anna healed. He would fill their home with love. It was all he could do. ○



**Paul McAuley is the author of more than twenty books, including science fiction, thriller, and crime novels. He's won numerous awards—such as the Theodore Sturgeon Memorial Award for his novella “The Choice” (*Asimov's*, February 2011). Paul's latest books are a monograph on Terry Gilliam's film *Brazil*, published by the British Film Institute, and a novel, *Something Coming Through*. After working for twenty years as a research biologist and university lecturer, he is now a full-time writer and lives in North London. In his newest story for *Asimov's*, marauders after the Collapse discover the potency of . . .**

# WILD HONEY

**Paul McAuley**

**M**el was in the warm dim crawlspace under the hive's chimneys and stalactite combs, installing new harvesting frames, when the bees began to signal the presence of intruders. Irregular pulses of alarm code flashing through the net; older workers hustling toward the entrances to augment the guards; an urgent bass drone building.

Mel's blood thrummed in sympathy. She went outside and with field glasses scanned the dun grassland. A witchy old woman in a faded patched sundress standing in the shade of the nest's spires, a few ride-along bees clinging in her long white hair. It was late in the afternoon, very hot. Sunlight lanced low out of a flawless blue sky. Trees and stubs of broken wall cast long shadows, and something twinkled in the far distance, a star of reflected light moving out on the old highway.

After a minute or so, the star resolved into Odd Sanders's battered pickup, driving in a caul of dust ahead of an old army truck and a pod of trikes. Odd sometimes brought petitioners out into the city wilds, charging them for an introduction to the crazy old bee queen whose balm could cure all kinds of sickness. But petitioners usually didn't ride trikes, and as the little convoy drew closer Mel glimpsed bandoleers across the chests of the trike riders, and rifles and ballistas strapped to their backs.

Foragers were already out, shuttling between the hive and a stand of black locust trees half a mile to the north. Mel could see in her mind's eye the shape of their traffic laid across the landscape, could see a frail spike of scouts bending toward the highway, and yet again wished that she could use the hive's network to send the bees where she wanted, and peer through their faceted eyes. She watched as the convoy stopped about a mile away, near the fieldstone chimney that marked where the house of an abandoned homestead had once stood. Almost at once, something lofted from the army truck and curved toward Mel, gathering a smoky comet-tail of bees as it approached.

It was a drone, the kind printed from fungal mycelium and coated in bacterial cellulose and wasp-spit proteins. Mel had once tried to use bigger versions to dispatch

balm and honey liquor to Hangtown, but had given up after bandits had started to shoot them down. It looked like a pale cowpat, hovering on four red props just beyond the edge of the roof. A speaker whistled and Odd Sanders' voice said, "You'd better come over. Someone needs your help."

Odd Sanders had started helping out after Mel's apprentice had been killed by a bear last fall. Rasia had been with Mel for eight years, a sweet-natured dutiful young woman with a natural talent for reading the mood of the hive. Mel had been certain that when she joined the queens below she would leave the hive in good hands, but then Rasia had gone to collect windfalls in a stand of wild pear, and a lone male black bear had killed and half-eaten her. Mel had tracked and dispatched him, but the effort and the grievous loss had almost undone her. She was old and tired, she had lost her successor, and for the first time feared for the future of the hive. Without a keeper it would go feral, like its daughter hives, or die out, or be ransacked and destroyed by bears or bandits.

Odd had turned up a couple of months later. A smooth-shaven plausible young man who told Mel that people in Hangtown had been missing her good stuff, and he'd be honored to do business with her. Mel had traded small batches of honey, honey liquor, wax, and balm for copper and germanium dust and a few personal necessities, and he'd sometimes brought out people who needed her healing touch.

These visitors were some kind of outlaw gang, but Odd claimed that one of them was bad sick, and Mel was bound by the customs and conventions of a sect that no longer existed to treat all those who needed her help. They'd started smudge fires around their little encampment to keep away bees. Leaning on her staff at every other step, Mel hobbled through the haze of smoke, skirted a smoldering pyre of green branches and uprooted bushes, and discovered Odd waiting for her amongst a small group of desperados dressed in the usual leathers and denim and tattoos. One had a sword sheathed on his hip; another toted an ancient semi-automatic rifle.

Odd was uncharacteristically subdued, and looked horrified when Mel told him outright he'd fallen amongst thieves and brigands.

"They're travelers is all," he said. He was tall and angular, with a mop of black hair that hung over his eyes. He wouldn't meet her gaze. "One of them needs your good stuff."

"I know what they are, and they know it, too," Mel said, looking around at the half dozen grim, grimy men.

When she asked who needed her help, a piping voice behind her said, "Good of you to come, grandmother. Saved us the trouble of smoking you out."

A small, fat, ruined child stood in the open flap of the army truck's covered loadbed, dressed in baggy camo shorts and a cut-down, red leather jacket, a cigar cocked in his mouth. After a moment, Mel realized that he was a neo. They'd been designed for space travel, neos. Tweaked so that they stopped growing at around four years old. The idea had been that they would need fewer resources and could live in smaller craft than base humans, and although the Collapse had ended the old dreams of making new homes beyond Earth, they'd survived and thrived. Long-lived and clever, most preferred to live by their wits on the outskirts of civilization.

This one was called Demetrius Ten, telling Mel, "My man July needs your help. Let's see if you deserve your reputation."

The patient was shivering under blankets in the back of the truck, slick with sweat and unconscious. When the young woman who'd been dabbing his brow with a wet cloth moved aside, Mel caught a faint whiff of stale milk.

"He got himself shot," Demetrius Ten said. "The wound went bad, we tried to burn the badness out, but it got into his blood."

Although he looked like an overgrown toddler dressed up as a gangster, there was a malicious glint in the neo's gaze and he had a commanding swagger. He could be any age from ten to a hundred. Maybe even older.

He watched as Mel stuck a temperature strip on July's forehead and unpacked the stand from her leather doctor's bag. The strip showed a temperature of a little over a hundred degrees, the man's breathing was shallow and rapid, and his pulse quick and thready: he was suffering from severe sepsis.

The wound was in his shoulder, a neat, charred hole with a little clear fluid oozing from the black crust, no pus or stink of infection. Mel fixed a balm compress over it just to be sure, hooked a bag of balm over the tee of the stand, and asked the young woman if her patient had been given any medicine.

"Tell her what she wants to know," Demetrius said, when the young woman looked at him.

"He had some whiskey when they burnt out the infection," the young woman told Mel. She was sixteen or seventeen, with red hair and luminously pale skin. "He was drinking on and off for a couple of days? But then he got a fever."

"What's your name, dear?"

The young woman glanced at Demetrius again, then said, "Hannah."

"She's my little milk momma," Demetrius said.

Hannah blushed prettily. Mel suddenly understood, saw Demetrius plugged into Hannah's breast, pausing occasionally to suck on his cigar instead.

She said, "When exactly did July pass out?"

"Last night. I've been bathing him with water to keep him cool. We don't have any of your magic stuff." The young woman was watching Mel tighten a cord around the sick man's arm to make the veins stand up.

"It isn't magic." Mel slid a needle into a vein and taped it down and opened the drip regulator. "A century ago I would have used antibiotics. But bacteria became resistant to all of them, so we must find other ways of fighting infection now. My bees have been tweaked so that they enhance the antimicrobial properties of honey made from the nectar of certain plants. I refine that honey, and that's what balm is."

Demetrius, puffing on his foul cigar, asked how long it would take.

"If the fever breaks he'll probably live," Mel said.

"He better. Hannah can look after him for now. We need to talk business."

"I don't charge for treating people," Mel said.

Demetrius gave her a roguish smile. "We need to talk about my business, not yours."

As they walked toward the hive, Odd Sanders told Mel a complicated story about people in Hangtown who resented his charm and success and tried to sabotage him at every turn, and a girl who, through no fault of his own, had fallen in love with him.

"And you got her pregnant," Mel said, wanting to cut through the young man's self-justifying bullshit. She had never entirely trusted him, but hadn't realized until now just how little there was beneath the mask he wore to fool the world.

"So she says. I chuckled her because she was so tiresomely clingy, and she came up with this story. And when I told her it didn't change anything, because I frankly didn't believe her, she went to her father," Odd said. "He happens to be one of the people who have it in for me, and also happens to be a friend of the mayor. Well, her brother, actually. So I had to get out. All because some silly bitch wanted to get back at me."

"And I suppose you seduced her because you wanted to get back at her father."

"It seemed like a good idea at the time. Still does in a way, you know? Now he can deal with her, and her brat," Odd said, with a grimace of a smile behind the visor of his hood.



Odd and the outlaw escorting him and Mel were sealed inside in yellow biohazard suits much patched with duct tape. Neither the suits nor the pistol holstered at the outlaw's hip would be much protection against the bees, but Demetrius had told Mel that if she didn't come back with the goods, he'd load Odd's pickup with brushwood, tie down the accelerator and the steering wheel, and set it on fire and aim it at the hive. Telling Odd, when he protested, that losing his pickup was the least he had to worry about.

Now, Odd told Mel that he'd made the outlaw boss promise she wouldn't be hurt, that all they wanted were some trade goods and they'd be on their way.

"I hate to do it to you, but I need to put some distance between me and Hangtown as fast as possible," he said. "And I need a stake to start over. That's all it is. We get the goods, and we get out of here and leave you in peace. You have my word."

"It isn't your word I'm worried about," Mel said, glancing at the drone wobbling through the air above them.

"Demetrius doesn't want trouble. He knows your reputation. What the bees are. What they can do. I told him all that. It's just like our usual trade, but this time I'm going to have to owe you. But when I get it together somewhere else, I swear I'll try to find a way of making it up to you."

The hive reared above them. Rooted in the ruin of a brick single-story house, its peaks soared fifteen feet into the air, built of grains of dirt excavated and emplaced by workers over the course of more than a century. Mel was its third keeper, having inherited it some forty-two years ago when the woman to whom she had been apprenticed had transitioned into one of the queens below. The exterior had been weatherproofed with a sheen of wax that shone black as oil in the sunlight. Bees shimmered around it like smoke: foragers heading out along airy highways toward the black locusts or returning laden with pollen and nectar. The outlaw swiped at a bee that landed on the visor of his suit, swiped at another that landed on his arm.

"If you keep that up," Mel told him, "they'll swarm you."

"Listen to her," Odd said. "These aren't ordinary bees. They're smart. All linked up into like one mind."

He was quivering with nerves. Behind the visor of his hood his face shone with sweat; his hair was pasted to his forehead. He'd never before come so close to the hive.

Demetrius's voice piped up overhead, from the drone. "Just get in there and get it done and get the fuck out."

Mel lived and worked in what had once been a lean-to garage, its walls partly subsumed by the hive's bulwark flanges and patched with fieldstones and corrugated iron. Odd was more confident once they were inside, and quickly found the cool box and started to pack the bags of balm into one of the knapsacks he'd brought.

"Every bag you take is a life lost," Mel said.

She could trace the trajectories of the scouts that spiraled around the two men, could feel the intricate seethe of bees beyond the wall of the lean-to, see the queens and their retinues in the brood combs at the heart of the hive.

"They'll save lives," Odd said. "Just not here. And you always can make more."

"You know that takes time."

"Then let the sick buy balm from the market."

"And if they cannot afford it?"

"That's their problem. Why don't you start decanting the liquor? Sooner you do it, sooner we'll be gone."

"I doubt that," Mel said, but she cracked valves in the stainless steel reservoir of the still and began to fill plastic bottles. A heady scent like a distillation of summer filled the air. Bees clustered around the rims of the bottles, hummed at the reservoir's spout, landed on Mel. One stung her on the web between her thumb and forefinger. She hardly noticed.

The outlaw stood in the doorway watching her. The drone hovered at his shoulder. She hoped that they hadn't seen that she'd opened the little reservoir inside the still before she'd started draining it.

Odd packed the bottles in another knapsack. When the still was empty, he rooted inside Mel's ancient maker and took out the precious tubes of copper and germanium dust that the machine used to print the network dots that the bees inserted in every larva.

"Half of this won't be enough for what I need," Odd said as he cinched the knapsack, "but it'll have to do."

Mel said nothing. She felt calm but hollow. A high note hummed in her head in counterpoint to the hive's drone. She wasn't even startled when the outlaw aimed his pistol at her.

"Don't," Odd said.

"Why not?"

It was the drone that had spoken, not the outlaw.

"Because if you kill her, the hive will swarm," Odd said. "Millions of angry bees. The smoke won't keep them all off."

Mel supposed that she should feel grateful for the intervention, but she didn't. Odd had thrown her into this trouble; she had to do what she had to do to get out of it.

"Bring her back," the drone said, after a long moment. "We can talk about that maker of hers."

He had another plan, Demetrius told Mel when she'd been returned to the outlaws' camp. "We're low on ammo. When we get hold of some high-density plastic and the necessities for gunpowder, you can run off a big batch of bullets and shotgun shells on that maker of yours. And while you're at it you can make some more of that liquor and your healing shit, too."

"I'm out of honey," Mel said.

"Bullshit," Demetrius declared. He was looking up at her with his fists on his hips. "There must be a ton of the sweet stuff inside that nest."

"It's a hive. And the bees need a store of honey to tide them through the winter. If I dip into that the hive could die."

"Either you help us or we'll find a way of taking what we need," Demetrius said. "And if we have to do that, they'll die anyway. You too."

"It seems I don't have any choice."

"Yes, you do. But your best choice is to help me out, like you would any other traveler who asks you for a favor. I'll send Odd here back to Hangtown for ammo makings, and you can fire up that still." Demetrius grinned and rubbed his hands together. "Drugs and drink and ammo: three of the best kinds of currency out here. Do right by me, grandmother, I might even cut you in."

When Odd Sanders started to say that he couldn't go back to Hangtown, there were people who wanted to nail his hide to the jailhouse wall, Demetrius held up a finger. One of his men stepped up behind the trader and punched him in the back of his head and knocked him to the ground. A couple of the other outlaws laughed. They were sitting around a campfire, passing bottles of Mel's liquor between them. One spat a mouthful in the fire: blue flames flared.

Demetrius looked down at the dazed young man and said, "You're afraid of the wrong people."

"I'm not afraid of them," Odd said, summoning up the shreds of his plausible manner. "They won't trade with me, is what I was going to say."

"Who said anything about trade? You can find where they keep their shit. We'll go in and take it. But not tonight. Tonight we celebrate. Not you though," Demetrius told Mel. "You go see to July. He's still out cold."

In the dim cave under the truck's canvas cover, Hannah said that July's fever had gone down, and he seemed more restful. Mel wasn't surprised: she'd given the man a bag of balm doped with ketamine, the stuff she reserved for troublesome patients and to ease the passing of those too far gone for treatment. After half a bag he wasn't so much asleep as catatonic.

Mel asked Hannah how he'd got himself shot; the young woman said that he'd gotten into an argument with another man over the price of a hat.

"So this other man shot him?"

"No, July stabbed the man wanted to sell him the hat, and the man's friend shot July."

"It must have been a good hat."

Outside, someone shrieked in pain and outrage. Mel twitched back the flap of the cover, saw Odd Sanders writhing as two men held him down while a third poured liquor into his mouth. Hannah said, "They're getting a real drunk-on with your stuff. Are you hoping they'll pass out?"

"Not exactly."

"They get mean when they drink. Especially D."

"Does he hurt you, dear?"

Hannah shook her head. "He gets one of his boys to do it."

"Because he'd have to stand on a chair to slap you," Mel said, which won a quick smile from the young woman. "Does he give you injections to make you lactate?"

Mel had to explain what lactate meant; Hannah said that she didn't see how it was any of her business.

"People think that keepers like me are hermits and holy healers who don't live in the real world," Mel said. "As if there is some other world beyond the one we all share. But I talk to people who pass by the hive, or stop and ask for help. And when I was much younger, when I was an apprentice, I went into the market of Hangtown every month and sold balm and honey and bought supplies. You need a quick mind and have to know about people to get a good deal. I got to know the market pretty well. There was a house in one of the little streets behind it. I'm sure you know the kind I mean. It specialized in the needs of neos."

"I was bought, all right?" Hannah said with sudden quick anger. "The owner of the house got into debt and she sold me to D."

"Was this in Hangtown?"

"No. Over near Detroit."

"Is that where you come from?"

"I was born in Wisconsin. My father sold me to a place there after our farm went under, and a bit later they sold me on to a guy who took to me to Detroit. He was the one had me fixed up by a tinker, if you must know," Hannah said.

"My mother couldn't keep me either," Mel said. "But I was lucky. She gave me to the Keeper sect."

"And now you're queen of that big old hive," Hannah said.

"I'm the keeper. I serve the bees; they don't serve me. But I've had a lucky life."

"They had bees in Wisconsin. The hives were much smaller though. They fertilized apple trees. What do your bees do, out here?"

Mel liked her for that question. Hannah had had a hard life, no doubt, but she was smart and still had a spark in her.

"The bees do what they need to do," Mel said. "There were homesteads here, once upon a time. Part of a big plan to rewild a city no one needed any more. The hive fertilized some of the crops. Medical tobacco, okra and soy, sunflowers and mustard . . . Then there were summer droughts and killer winters, and the homesteaders gave

up and moved away. But I stayed on. I protect the bees as best I can, and try to do my best by people who need my help.”

“You love them,” Hannah said.

“Of course,” Mel said.

But the bees didn’t love her back. Every keeper had to accept that. Some outsiders believed that because they were tweaked and networked the bees had somehow acquired sentience. They hadn’t. And even if they had, it was doubtful that they would have acquired any concept of love or hate, or free will. They knew only loyalty and the chains of duty: their life paths were engraved in their genes. The organization of the hive was as pure and pitiless as mathematics. Individuals were no more than integers in the calculus of its survival.

Hannah said, “I saw your hive. It looks like a fairytale castle.”

“The bees have been tweaked with termite behavior to build hives that are air-conditioned. It helps them survive the hot summers and cold winters.”

Wild bees and baseline domestic honeybees had all died out at the beginning of the Collapse. There were only tweaked swarms now, in hives tended by keepers or in wild daughter hives.

Hannah said, “I heard they can kill people. Bees.”

“One sting can do it if you’re sensitive.”

More shouts outside; more laughter.

“I mean you can use them as weapons,” Hannah said, with a flat direct look.

Mel knew then that Hannah was hoping that she could help her, and felt a flutter of relief. Things would go much easier with the young woman on her side, and there was the frail hope that afterward, if things came out right, that she might stay on as her apprentice.

She said, “The bees defend the hive, if they have to.”

“So do they defend you, too?”

“Of course. When I’m in the hive.”

“But can you make them attack anyone you want?”

“Is that what you’d like me to do?”

Hannah leaned across July and whispered, “When he doesn’t have any more use for you, D will kill you.”

“I know.”

“But you came over here anyway. You didn’t stay in your hive, where the bees could protect you.”

“I came to save a life. And because otherwise Demetrius would have come to me. The bees can’t protect me against people like him, Hannah. But maybe I can protect them. You too, if you want me to.”

“Maybe we can help each other,” Hannah said.

“I hope we can.” Mel opened her doctor’s bag and took out a little tube of liquid honey and told Hannah she should drink it.

“It will protect you against my bees. Give you the smell of the hive.”

Hannah uncapped the tube, sniffed its contents, then downed it in one gulp. She said, “I thought you couldn’t use your bees against people.”

“I can’t. This is for afterward.”

“After what?”

Hannah was all eyes in the dimness.

“After we deal with Demetrius and his boys.”

Mel unpacked her doctor’s bag. One of her patients had given it to her years back. It was very old, with cracked horsehide leather and brass fittings and a capacious maw. Mel lifted out the false bottom and took out the little pistol crossbow stowed there.

"People think I use the bees as weapons," she told Hannah, "so they generally don't think to look at what I carry."

"Are you going to shoot them?"

"Would you have a problem with that?"

Hannah shook her head. She said, "What do you want me to do?"

"First, we wait."

"While they get drunk?"

"While they get a lot more than drunk."

The voices outside grew louder. Someone started to laugh and it rose in pitch and turned into raw sobbing. Someone else began to scream. And then someone shouted, "I see them! I see them in the trees!" and there was a gunshot. Someone was laughing hysterically and someone else said, "Look there! I see them! I see them too!" and there were more gunshots. Mel told Hannah to wait there and stay low, and peeked through the flap of the canvas cover.

The sun had set and everywhere was blue with shadows. A man lay unconscious near the dying campfire; he was naked and had carved up his chest with a knife before he'd passed out. Mel clambered out, froze when gunfire rattled hard and loud nearby. In the sudden silence, she saw a man just a hundred yards away, raising his rifle to take aim at the moon's low crescent. Mel's quarrel took him in the throat and he grunted and dropped bonelessly.

Her pistol crossbow clicked quietly as it drew its wire taut again. After years of practice, she could take down a sparrow in flight.

She shot a man howling and staggering with his hands pressed over his eyes. She found a dead man without a mark on him and bloody froth on his lips. Killed by a seizure. She heard someone scream in the trees beyond the campsite, suddenly silenced by the pop of a pistol. She found drag marks in long grass and followed them to where Odd Samuels lay on his back, eyes crossed as if trying to focus on the neat hole oozing in his forehead.

"Fucking bitch," someone said, and Mel turned and she and Demetrius fired at the same moment.

Something punched her shoulder and she was on her back looking up at the dark blue sky. She tried to push up and everything hurt. Her breath was tight and she spat a mouthful of blood.

Demetrius came around the campfire with a waddling walk, kicked her crossbow away, looked down at her. She had forgotten he was a neo, and had aimed too high.

The eye of his pistol wove, now pointing in her face, now pointing away. He leered drunkenly behind it.

"What did you do to us?"

Mel's breath whistled in her chest. She spat more blood, said weakly, "Mad honey."

Foragers from daughter nests near the river browsed on the swathes of rhododendrons that grew there, harvesting nectar that contained a potent neurotoxin that caused nausea and numbness, seizures and hallucinations. Mel had drained a portion into the still before she'd decanted the liquor that Demetrius and his men had guzzled down.

The neo was weaving, cross-eyed, but still lucid. "Fucking bee magic," he said. "I'm going to kill you, and then I'm going to burn that fucking hive."

A shadow rose up behind him, there was a hard hollow crunch, and Demetrius fell down. Hannah dropped the rock she'd hit him with, snatched up his pistol and shot him and shot him again, kept shooting until the pistol clicked on an empty chamber.

**T**he old woman was tough. Demetrius's shot had taken her high in the chest, clipping a lung, but she survived for more than three weeks and was lucid to the end. She

told Hannah how to dress her wound, refused Hannah's offer to head for Hangtown and get help. Her time had come, she said. She was ready to join the queens below.

She subsisted on a diet of water and honey. A light clover honey first, then a heavy dark molasses made from goldenrod nectar. She showed Hannah how to set up a drip that fed an infusion of balm and natural sugars directly into her bloodstream, and Hannah massaged her with an emulsion of honey and walnut oil every day.

Her skin acquired a golden sheen, and her sweat and breath smelled of honey. Her eyes turned gold, her fingernails translucent amber. Every cell was becoming permeated with the honey's dehydrated sugars, preserving her body against corruption.

Meanwhile, she told Hannah about the bees and the hive, and the secrets of the vanished sect to which she had once belonged. It came tumbling out in no particular order, and she often repeated herself—the only sign that she was dying. “Bees know,” she said, over and over again. “The secret is to let them work. They know what to do.”

Hannah learned how to harvest different types of honey from different parts of the hive, how to refine honey from the nursery combs to make balm, how to use the still to make honey liquor, how to use the wax extractor, how to program the maker to manufacture the quantum dots that every bee carried. The old woman told Hannah that she should begin to drink an infusion of dots too, so that they would cross the blood-brain barrier and connect her with the bees' network by the magic of old-time technology, but Hannah wasn't ready for that. Not yet, not yet.

The survivors of Demetrius's gang hadn't caused any trouble. Hannah had collected every weapon she could find before driving Mel to the hive in the trader's pickup. By the next day, July had recovered enough to stagger about and shout threats, but he was unarmed and didn't dare get too close to the hive. After Hannah fired a couple of warning shots he eventually drove off on his trike. Demetrius was dead; so were four of his men. The other two had run off into the city wilds while seized by the hallucinatory fever of the mad honey, and Hannah never saw them again.

Still, she waited for three days before she dared leave the safety of the hive and deal with the bodies. By then, they were bloated by heat and had been mauled by wild dogs, and stank worse than her family's hog farm after the virus had swept through it. She used one of the trikes to drag what was left of them into a heap and piled brushwood over them and soaked everything in fuel alcohol drained from the truck and set it on fire. She drove the truck and all but one of the trikes into a draw near the river and, apart from the charred spot, she reckoned that no one could tell what had gone down there.

One day, she woke to find that the old woman was covered with a thin blanket of bees and knew that she was dead. The body was as light as a child's and seemed to shine with an inner light. Hannah carried it down into the warm, dim cellar under the hive and laid it in the seamless plastic sarcophagus the old woman had had printed in Hangtown a couple of years back. The coffins of her predecessors stood close by. The shapes of their bodies visible in the dark gold matrices. The quantum dots in their brains formed the server architecture for the bees' network, and now the old woman would augment it. Hannah wondered, as she filled the sarcophagus to the brim with honey, if anything of the dead women lived on in the bees. Ghosts in the busy machinery that filled the cellar with a deep drone like an engine steadily driving it to some distant shore.

Hannah had promised the old woman that she would make sure the hive was kept safe, but she believed that it could look after itself, like the smaller daughter hives scattered around about. They didn't need quantum dots or a network, they lacked any kind of human care, and they were doing just fine. Hannah wasn't ready to become a witchy fairytale hermit, a queen of the bees with spooky magical abilities. She knew enough now to know it wasn't really magic, just some old tech and the bees. Mostly the bees.

“They know what to do,” the old woman had said, not realizing that she was telling Hannah that they didn’t need anyone’s help. The world now wasn’t the world as it had been when the old woman had been young. Like the daughter colonies, it had grown wild and strange.

So Hannah had no qualms when she rode off on one of the trikes toward Hangtown. When she'd gathered up the weapons, she'd also looted the little stash of hard cash that Demetrius had thought she didn't know about. Her breasts ached all the time and she had to express milk four times a day, and every time she'd think of Demetrius wiping his chin and sticking his cigar back into his mouth. She was going to find a tinker who could reverse the tweak, put an end to that. And after that she'd figure out what to do next.

Hannah was followed by a floating finger of bees as she drove away. It stretched thinner and thinner until at last it was gone, and Hannah rode on alone through the hot afternoon. When she stopped a few hours later to make camp, she found that several bees had tangled in her hair. As she carefully combed them out, one stung her. She crushed it. ○

# What We Know Now From Time Travel

Time heals no wounds  
But makes an effective bandage

## It's easy to find heartbreak In truly long distance relationships

No killing father no marrying mother  
You can't be a self-made man

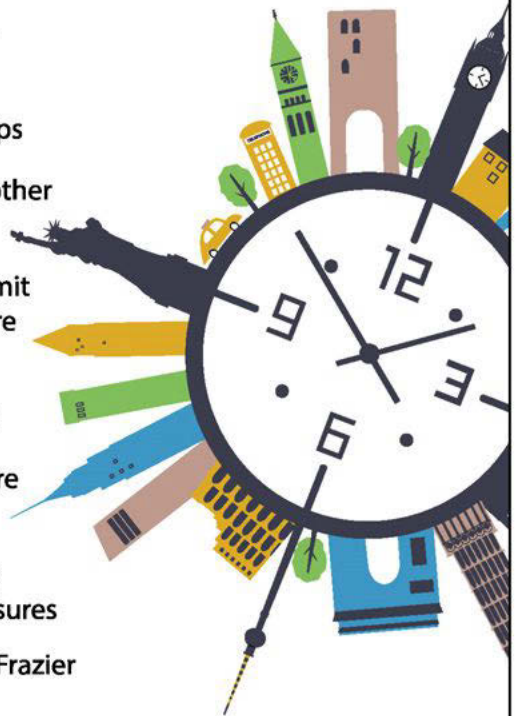
Wait a day for tomorrow is the limit  
That you can travel into the future

Living in the present is relative  
So is living in the far distant past

I'm somewhere you're somewhere  
We both hold to no fixed line

Time beats on a madman's drum  
Plays our souls in crosstime measures

—Robert Frazier



**Karl Bunker <[www.karlbunker.com](http://www.karlbunker.com)> lives in a small town north of Boston, Massachusetts, with his wife, sundry pets, and an assortment of wildlife. His fiction has appeared in *Asimov's*, *F&SF*, *Analog*, *Interzone*, *Cosmos*, *The Year's Best Science Fiction*, and elsewhere. Karl has been a software developer, jeweler, musical instrument crafter, sculptor, and mechanical technician. He's never worked on the Brooklyn Bridge, but he brings this Herculean feat to life in . . .**

# CAISSON

**Karl Bunker**

**T**he first time I saw Mischke was in the winter of 1871, and he was on his knees making cooing noises at a baby. The baby was on the lap of its mother, a plump young woman whose expression made it clear she didn't know quite what to make of the oversized bear of a man who was tickling her infant's cheek with a calloused finger. The woman had entered the noisy tavern a few moments prior, and had sat at one of the tables after speaking a few sharp words to the barkeep. Her presence had attracted some attention, as it was a rare thing to see a woman in one of these New York taverns. But the man on his knees hardly seemed to notice her; he was only interested in the baby. For its part, the infant seemed quite happy with his new friend, laughing and flailing a fat little arm as he tried to catch the finger tickling his face. After a few attempts he succeeded, his hand clamping down on a great log of a forefinger it could only half encircle. At this the man's enthusiasm redoubled, and he launched into an excited monologue that included a few phrases of Polish along with the clucking nonsense syllables. I recognized the eastern drawl of Kresy dialect, close enough to the Mazovian Polish I grew up with to give me a sudden ache of homesickness.

Then another man approached. He looked down at the Pole with disapproval, but immediately the woman launched into a tirade at him, snapping out a string of angry words in Irish-accented English that was too fast for me to follow. The couple left, and the big Pole got to his feet.

I was new to this country, and I felt always on the edge of being overwhelmed by the strangeness of everything. I slept in one of the many small rooms above the Nassau Avenue tavern I was in, and five other men shared the room with me. We were all strangers to one another, and it was clearly the tradition that we continue to treat each other as strangers, even as we unrolled our sleeping pallets side-by-side, so close they almost touched. Indeed, it sometimes seemed that being strangers to each other was the rule for all people of America. The Greenpoint neighborhood of Brooklyn where I lived was largely a mix of German and Irish immigrants, with a few Poles like myself and a dozen or so other nationalities beginning to sprinkle in. So everywhere I turned there were people not like myself, and I felt like a small fish tossed into an alien sea.



And this new man, in spite of the familiarity of his language, was a strange-looking figure even in a country of strangers. Like the crude wooden tables and chairs around us, he looked like something banged together by a peasant carpenter. He was coarsely chopped and chiseled and sawn, the various mismatched pieces of him held together with pegs and nails. His nose was crooked, and one eye was always open wider than the other. He hadn't shaved recently, and his hair looked like it was hacked off with a pocketknife. His face was craggy and lined in a way that made it impossible to guess his age.

I was sitting at a long table a few feet from where the Irish girl had sat to wait for her husband. As the man I'd been watching stood, I called out to him in Polish, shouting over the background noise. "I think you must have a well-loved little baby of your own at home."

I knew before the words were fully out of my mouth that I'd made a terrible mistake. The man looked down at me, and while his face was as immobile as stone, he seemed to turn gray and crumple in on himself as I watched. He pulled out the empty chair across the table from me and sat down slowly. For a long time he stared at me with an expression I found frightening, until I realized he wasn't truly looking at me at all, or at anything else in this world. Finally he made a hunching, rolling gesture with his huge shoulders, as if throwing off some great weight. Then he turned and bellowed out to the bartender, calling him by name and asking for vodka and a bowl of cabbage soup. When the bottle and a glass were delivered to the table Mischke poured the little glass full and then emptied it in two swallows. Only then did he look at me—*really* looking at me now—his eyes scanning my face. "*Mazowsze*," he said, guessing the general region of my origin from my accent as I'd done with him. "Warsaw?"

"Kutno," I corrected, and then I stuck out my hand in the American fashion. "Stephan Dudek."

He took my hand. "Mischke," he said. In all the time I knew him, I never learned his first name.

A bowl of soup and a slab of bread were brought to the table, and Mischke began to eat. A few minutes passed without him speaking or looking at me, and I began to wonder if he'd forgotten about my existence—if the few words he'd shared with me were all I would ever get from him.

But then he looked up, his eyes meeting mine. He jabbed a finger in the direction of his soup bowl. "I showed the cook here how to make *kapusniak*," he said. "It's not bad." He twisted around in his chair and yelled the bartender's name again, demanding another bowl of soup "for my countryman." Then he looked me over, examining what he could see of my body as well as my face. "You work in the docks?"

I nodded.

"You look like a strong man, and healthy." He'd switched to English, and I got the feeling he was repeating something he'd heard in that language. He refilled his vodka glass and took a sip from it—an oddly delicate gesture on a man of his size. "You want to make two dollars and twenty-five cents a day?" he asked. "Come with me tomorrow, I'll get you a job working on the bridge."

My face must have taken on a silly expression, because Mischke broke into a ragged grin. Two dollars and twenty-five cents was far more than I earned on the docks, but . . . "You mean on the towers?" I asked. I was thinking of the dizzying height of the Brooklyn tower, only half-finished, I'd heard, and already it was taller than any other man-made thing I'd ever seen.

"Nah!" Mischke growled. His voice was full of disdain, as if he considered wrestling huge blocks of granite into place hundreds of feet in the air to be work for boys. "Not the towers. The caissons! The Brooklyn side is all done, but on the New York side there's still months of work."

"The caissons!" I echoed.

"You've heard about them?"

"I've heard a little," I said, not adding that what I'd heard sounded both terrifying and incomprehensible. "But I don't understand it too well. Something about working under the water?"

"Yes!" Mischke said with a kind of wild delight in his eyes. "Under the water, but not *in* the water! I'll explain." He took hold of his soup bowl with both hands and slid it toward me a few inches. "It's like this: Here is Brooklyn." He stabbed his thick forefinger down on the table between himself and his soup bowl. "And here is New York." His finger thumped down on the opposite side of the bowl. Then he pointed into the bowl. "The soup here is the East River; a big, wide river, you know. So. To build a bridge this big, first you need two towers, one on each side, but both of them *in* the river, not back here on the shore. The towers will hold up the bridge, okay? Aha! But how to build a stone tower that has its foundation deep down in the water of the river?" He held two fingers together and poked them into his soup, down to the flat bottom of the bowl. "That's the problem!"

When you order vodka from a bar in America, they give you a little doll-sized glass to drink it out of. Mischke picked up his glass and emptied it into his mouth. Then he held it upside down over his soup, lowering it slowly toward the surface. "Imagine this is made of wood," he said, tapping the glass with a finger of his left hand. "Imagine it is big. Very, very big. But it floats, see?" He held the glass so it was just skimming the surface of his soup. "Now. You float this out to the right place in the river, and then you start laying blocks of stone on top of it. More and more stone. You start building your tower. You know what happens? This thing"—he pointed at the glass—"it sinks. The more stone you add to the top, the lower it sinks in the river. Enough stone, it goes down to the bottom of the river." He pushed the glass down to the bottom of his soup bowl.

"Clever," I said.

He leaned closer to me suddenly, glaring with his mismatched eyes. "Wrong!" he said. "Not clever, because that's not the end of it." The wider of his eyes relaxed, while the narrower one kept up a skeptical squint. "What's at the bottom of a river, Dudek? Mud, that's what! These towers that will hold up the bridge, they're going to be tall, huge! Taller than the Trinity Church when they're done! You want to build something like that on mud?"

I was new to New York, and hadn't seen Trinity Church yet.

Mischke's voice changed to a gravelly whisper and he smiled like someone making a sly joke. "This is where it gets interesting, young Dudek. This is where *you* come in. You and me, and the job we do." Again he pointed down at the glass he was holding up-ended in his soup. "This thing, that's the *caisson*. That's French for box, because that's what it is, a big wooden box, open at the bottom. It has air in it, right? I push it down into the river, the soup, but the air is still in it, right? Hah?"

"Right," I said. "Air."

"So what they do, what Colonel Roebling does—he's the boss, the big boss, the chief engineer, they call him—what Colonel Roebling does, he makes it so men can go down inside here." He tapped the little glass. "Men go down in there, and they dig. They breathe the air that's pumped down and they dig and dig, and all the dirt they dig is hauled up and out from inside the caisson, and it—the caisson—it goes down into the mud at the bottom of the river. The men dig out the mud and dirt and rocks from all around the floor of the caisson, and down and down it goes, into the earth, while up top they keep laying on more and more stone blocks. The caisson goes down more, and more, and more . . . until it is on bedrock." He thumped his fist on the table. "Solid."

I peered down at Mischke's upside-down vodka glass, sitting in the bowl of murky soup. "Inside . . . that box . . . under the water . . . under the *bottom* of the river . . . That's where you go? To dig?"

He was grinning at me, his big yellow teeth showing. "Inside, Dudek! That is the job I got for you. Me, I already worked on the Brooklyn caisson. Now you and me, we go work on the New York side. We go in there and we dig, dig, dig." He put his free hand near the glass, extended the first two fingers and made wagging motions with them, like the scratching, digging legs of a rodent. "There is more," he said, his grin becoming uncertain. "Much more for you to know, to learn, to find out. But that is enough for now. You know more now than I did when I started."

I had a dozen questions, and probably there were a hundred more that I didn't know enough to ask, but I said nothing. It was a job, and a job that paid well. Two dollars and twenty-five cents a day was more than any other job I'd ever heard of.

The next morning I was standing on a sea of stone, half a city block in size. Scattered here and there were huge boom derricks, steam engines spewing out black coal smoke and white steam, and everywhere men busy at a myriad of different tasks. Mischke and I worked the first shift, so the start of our day came at six in the morning. We were in a cluster of about a hundred men grouped around a small opening in the center of the stone plateau. Most of these men had an easy slouch that showed they were familiar with the setting, but a few of us were what the foreman called new guys. "You new guys come with me," he said. "I'll lock in with you."

"Lock in?" I asked Mischke, not sure I liked the sound of it.

"It means go in through the air lock. You'll see." The foreman led us through the crowd of workers and then down a long spiral staircase. When the steps ended, the outside world had been reduced to a small disk of light above us, and we were standing on an iron deck the size of a big room, surrounded by walls of stone. There was a square hatch built into the floor, and the foreman went over to this, opened it and climbed down through it, calling up to us to follow. One by one we went through the door and down a ladder and found ourselves in a smaller room, this one cylindrical and walled with more iron. There were about ten of us in our group, but there was space enough in the room for at least twice that many. The foreman climbed back up the ladder and closed the door we'd come through, and then called out to Mischke, "Open the valve, Mickey!"

Mischke turned a thing like an oversized faucet handle, and the room was filled with a howling roar. Air was rushing through the valve, bringing with it a stifling flood of heat and humidity. After a short time I felt a piercing pain in my ears, and it was obvious that others of us "new guys" were feeling it too. The foreman was yelling an English word at us over and over, but I was distracted by the pain and I couldn't think of the word's meaning. "Swallow!" Mischke translated, shouting at me. "Swallow, swallow!"

Some minutes later the roaring stopped, and the foreman opened another hatch at our feet. Again there was a ladder leading down, and again the foreman went first, then Mischke, then the rest of us.

It could have been another world, a world out of a fever dream.

It had been explained to us that the caisson was divided by timber walls into six lengthwise sections, and we were in one of these sections. So the width of the chamber was not so great, but the length seemed interminable, the far wall invisible in the misty gloom. The roof was three or four feet above our heads, and the ground we stood on was hard-packed dirt and gravel. At intervals along the walls there were blazing white lights, so bright that it hurt to look at them. But as bright as the individual lamps were, the steamy air seemed to swallow up the light before it had gone any distance. I could see that the walls had been whitewashed at one time, but months of spattering mud had blackened all but the uppermost few feet.

One of the men standing near me swore in English, and his voice was so strangely thin and weak that we all turned to look at him. He repeated the word, listening to

himself, and then laughed, saying that he sounded like his own mother. The foreman spoke to us then, and his voice too was transformed into a thin, wheezing treble.

We new guys were directed to a shelf where we could stow our lunch pails, and to pegs where we could hang our jackets and shirts. I saw then that the men who had “locked in” before us were all stripped to the waist. Outside it was a chilly November morning, but in this place it was miserably hot and humid.

And the air . . . I’d been distracted by my surroundings, but now I realized that I was panting as if I’d been running for miles. The air was thick and sluggish; it took effort to pull it into my lungs and then force it out again, like breathing water. I felt a flicker of panic nudging at the back of my mind; the panic of drowning. Mischke thumped his hand on my back. “It’s best not to think about the air,” he said. “Just breathe the stuff, and you’ll be okay.” Even Mischke’s voice, as big as he was, became weak and feminine in this place. I was about to make a joke to him about this, but the foreman was yelling at us—as well as he could in his enfeebled voice. It was time for us to work, he said.

The work was digging. Just as Mischke had described it with his soup bowl and vodka glass, we were to dig out the dirt from under our feet, and from underneath the walls of the massive structure we were inside. Shovelful by shovelful, we dug. We filled wheelbarrows with dirt and emptied them into a water-filled depression at the center of the caisson. A huge pipe ran from this pool up through the ceiling and on to the surface above, and inside this pipe was a clamshell device that lifted the dirt up to the outside world. Rocks too big to be lifted out in this way were broken up by men with picks. Boulders too big for men with picks were blasted apart with gunpowder. But for me and most of the men in the caisson, all we did was dig. Plunge your shovel into the sandy soil, lift it, dump out the soil. Then do it again, and again, and a thousand more times. It seemed absurd, what we were being asked to do—a few dozen men using the strength of their arms to create an inverse mountain, to lower this monster structure of wood and stone into the earth, like a farmer pounding a fence-post into the ground. But Mischke told me that the caisson was measured to sink a few inches every day, perhaps a foot in a week, a few feet in a month, and by these degrees the job would be done. The tower would have its foundation, the bridge would have its tower, and in time, the river would have its bridge.

So we shoveled.

At our lunch break Mischke went and sat on a bench that was against one of the outside walls of the caisson. Holding a gigantic slab of a sandwich in one hand, he banged on the wall behind us with the beer bottle in his other fist. It clanged metallically. “The inside is covered with sheet iron,” he said. “They didn’t know to do that with the Brooklyn caisson, so it was just wood. One day—it was when the digging in the caisson was almost done—a worker held a candle too close to the calking fiber between the timbers, up near the roof, and it started to burn. Nobody noticed the fire for a while, and by the time they did, it had eaten out a void inside the wood.” He leaned closer to me, looking into my eyes. “Things do not behave down here like they do up in the world. And fire . . . fire is one thing that behaves *very* differently.” He pointed up at the ceiling over our heads. “You know the walls and the roof of this caisson are thick, right? Layer on layer of the heaviest timbers, so the roof is fifteen feet thick. Well, that was a good thing, because the fire was burning through all of that. The place where the fire started was a small hole, no bigger than my hand. But inside the timbers of the ceiling, it was like a living thing, eating away more and more of the wood, hollowing out a big chamber. But that wasn’t the strangest thing, or the worst. Once that fire got started, it seemed that nothing would put it out. We used buckets of water at first, then they brought in a big hose and a pump, blasting water into the hole the fire had made. But always as soon as the water stopped, the fire would begin again. It seemed like it would soon eat away the whole top of the

caisson, and all the stone of the tower above us and all the water of the East River would come down on our heads." Mischke paused to chuckle, and I knew it was the sickly expression on my face that was making him laugh.

"So Colonel Roebling, the boss, the chief engineer," Mischke continued, "he comes down. He has carpenters drill holes to see how far the fire has gone into the wood. They drill here, there, there . . . and they find live, burning coals two feet deep in the wood, three feet deep, four feet . . ."

Mischke had finished his first sandwich, and he took the second out of his lunch pail and made a swooping gesture with it. He was eating a huge amount, even for a man of his size, and he'd emptied two of the four bottles of beer that were in his pail. "Finally Colonel Roebling decides to flood the caisson. He gets all of us out, and then he lets all the air out so that the river floods in, and the whole caisson is full of water. He didn't want to do this, because he was afraid the water crashing in might wreck the caisson. But there was no choice; the fire would not die any other way. You understand? *The fire would not die.* Not down here. Not with this air." Mischke waved his hand through the thick, heavy air between us.

"And it worked?" I asked. "Flooding the caisson put out the fire?"

"Of course! The colonel, he's a smart man; he knows what he's doing. They flooded it, and left it full of water for two days. That finally put the fire out. And the caisson wasn't damaged by the water at all. Once they pumped the water out again, we went back in and had the Brooklyn caisson down to bedrock in two weeks." He looked at me with a crooked grin of pride. "Forty-five feet below the bottom of the river we dug that thing."

The gong ending our allotted time for lunch sounded, and we stood up to go back to our shoveling. Mischke caught my arm. "You have to understand," he said, putting his face close to mine again. "It's different down here." He stabbed a finger in the direction of his lunch pail. "You see how much I eat? We are all like that down here—you will be too in a day or so. The air does something to you, to your insides, so you burn through food like that fire burned through wood. Everything is different down here. Life is different, fire is different. Even the stones are different!"

I looked at him, not sure what he meant. "The stones?" I asked, but too late; he had turned to pick up his shovel and was walking away to his assigned digging station.

We shoveled. Our shift ended, and we went home and came back the next day and the next and the next. As Mischke predicted, my appetite while in the caisson became as outsized as his. And at the end of each day, as we "locked out" and climbed the spiral stairs to the outside world of afternoon sun and cold November air, a crushing weight of exhaustion descended on me, out of any proportion to the work I had done. I would have been ashamed at my feebleness as I staggered up those steps, but I saw that all the men around me were in the same condition. There was something about leaving the air of the caisson that made the energy drain out of you like water being poured from a jug.

Then one afternoon as we were waiting for the boat that would ferry us to shore, one of the men near me suddenly made a strange yelping sound, crouching in on himself and grabbing at his stomach. A moment later he dropped to his knees, his face screwed up in agony.

"Agh," Mischke grunted beside me. "It's caisson disease—the Grecian Bends."

His words confirmed my guess. I'd heard of this disease that struck caisson workers, though this was the first time I'd seen it. Like any disease, this one seemed to be random and inexplicable. There was no guessing who would fall sick from it, or when. They said that sometimes a big, muscular man would become ill after his first day in the caisson, while a puny man would work day after day for months. Even the form the disease took was random. It might be a pain in the knee or elbow, or agonizing

stomach cramps, or a temporary paralysis of the legs, or sudden fainting and unconsciousness. They also said that at another place in America, where a bridge was being built across the Mississippi river, caisson workers had died of the disease.

Soon two men came along and helped the sick worker to his feet. They seemed to be friends of his, and they got him onto the ferry and sat on either side of him for the ride back to shore. Perhaps he would be back at work the next day, or perhaps not.

A few days after we saw the man get sick, Mischke came to me at lunch, drawing me over to his favorite bench in a corner of one of the interior partitions. "Look at this," he said when we were sitting down. He pulled a stone a little smaller than a fist out of his pocket and handed it to me. At first I saw nothing but a rock, but at Mischke's "Look, look!" I peered closer. Embedded into the stone and only partially revealed was the skull of a small animal, showing a pointed jaw with many teeth. Except for the teeth it looked like the skull of a bird, but I guessed it to be some kind of lizard.

"Colonel Roebling," Mischke said, "he calls these stone bones 'fossils,' and says they have been here for a long, long time, since before there was even a river here. He also tells me that in some parts of the world they find bones like these that are huge, bones from giant monsters that died out long ago. Around here there are only these smaller ones, but still, it's strange to think about, eh?" He took the stone back from me and stared down at it himself. "I find a lot of these. I keep my eyes open while I dig, and I find them. Sometimes when the colonel comes down here he asks me if I have any good ones, and he buys them from me." He hesitated for a time, and then looked up at me. "You want to see something else, young Dudek? Look here." He moved toward me so that we were huddling together over the stone in his hand. "Up there, in the regular air of the world, these things, these fossils, they are like stone. Stone in the shape of bones, but just stone. But down here . . . as long as they stay down here, in this air . . ." Cupping the stone in one hand, he slowly drew the thumbnail of his other hand across the edge of the jaw. Bits of stone flaked away under the pressure of his nail, revealing a line of white.

"You see?" He lifted the thing closer to my face. "It is still bone, as if this little animal died a year ago, even less! Down here, in this air . . ." He paused, squinting at me so that the narrower of his mismatched eyes closed down to nothing. "Things don't die so easy, so *completely*. Like the fire in the Brooklyn caisson that wouldn't die. And now, here, we are deeper than the Brooklyn caisson ever went."

"Mischke," I said slowly. "What are you saying? Do you think these bones aren't dead?" I didn't know whether to be embarrassed for my friend or if he was making a joke. I'd found that Americans often like to tease us "fresh off the boat" immigrants, telling us wild, silly stories just to see what we'll believe. Perhaps Mischke was playing this sort of game with me.

"No, I'm not saying that," he answered. "This thing is dead. It was dead before it even got covered up in the ground. I know when something is dead, Dudek, have no doubts about that." With that he turned away from me, putting the stone back in his pocket.

Mischke didn't speak to me much over the next few weeks. In the vast, six-chambered space of the caisson, it's easy enough for a man to keep to himself, even with over a hundred men down there with you. I worked. I shoveled dirt, I cracked boulders with a pickaxe, I learned how to drill holes for gunpowder in the larger boulders. And at the end of each day I drank, I ate, I slept, I missed my home.

Then Mischke came to me one afternoon as we were lining up at the airlock at the end of our shift. "Dudek, I need to ask for something from you. A favor. I need to ask for a favor." He said the word as if it was something shameful.

"Of course, Mischke," I said. "What can I do?"

"I want you to ask them to put you on second shift. You see . . ." His eyes shifted around uncertainly, which was something I'd never seen in him before. "I watch out

for it on first shift," he said. "You can keep your eye on it in second shift, and third shift, at night . . . well, there's not so many men down here then, and they don't work so hard. That foreman is drunk most of the time, so we just have to hope . . ."

I waited, not wanting to annoy Mischke with a flurry of confused questions. Finally he seemed to notice my silence and uncomprehending expression. "I . . . I found something," he said. "Maybe it's nothing. Probably it's nothing. But I have to see, I have to try, to find out . . ."

"What did you find, Mischke?"

He regarded me silently for a time, and then brought one of his big hands up to the level of his chest, his fingers curled as if holding an imaginary object the size of an apple. "An egg!" he said after another pause. "I was digging, and there were fossil bones first, and then three eggs. One smashed in, one cracked . . . and one . . . perfect. No cracks . . . just smooth, clean, perfect. I think . . . I think maybe it is not dead, Dudek. I think . . . if I take care of it, keep it warm . . . I think maybe it will hatch!"

Where I come from, people believe many things that I'm told the educated people of America do not believe. The evil eye that can spoil a baby's heart and make it die, the bit of red string to protect the baby, the danger of black cats, of spilled salt, and a hundred other things our grandmothers tell us of the hidden ways the world works. But this was not like one of those things that might be or might not. This was something that made me feel bad for Mischke. Once I started looking, I had seen many of these fossil bones that Mischke had shown me, and they were all nothing but stone; rocks in the shape of bones. Even if one of them was in the shape of an egg, it could no more hatch than any other stone. I avoided Mischke's eyes, not knowing what to say.

"I keep it hidden," he went on, "in a tin box I keep on the shelf where I put my lunch pail, covered up with a rag. It has to be up out of the ground so the air can get at it. And it's up high, so it stays warm. That's important. You understand? But the air . . . that's what's most important. It has to stay down here in this air until it's ready. If someone finds it and takes it up, takes it outside, that will kill it for sure!"

"So what do you want me to do, Mischke?"

"Just watch! Make sure nobody goes poking around in my stuff! That nobody moves the tin or tries to look inside! Put your lunch pail up on the shelf next to where I leave the tin, so it will look like it belongs to you."

It seemed vastly unlikely to me that anyone among the caisson laborers would touch, much less steal, anything that belonged to another worker, but I didn't argue the point. The more Mischke talked about this thing, the wilder his eyes got and the sadder I felt.

So I asked to be put on second shift, and the bosses agreed. They had a hard time finding men to work in the caissons; once men got a taste of how hard the work was, how strange the environment was, how terrifying it was if you let your imagination go, many of them left after their first day. Every week there were new faces in the crew, and after only a couple of months I was considered one of the "old hands" among the men.

As Mischke had said, on his corner of a shelf there was a bunched-up rag, and under the rag was a tobacco tin with a few holes punched into it. I didn't look into the tin, or even touch it. I just did my work and left at the end of my shift.

Again I barely saw Mischke for a few weeks. When I did encounter him, it was in the caisson, during the second shift. "Hullo, Mischke!" I called out. "You've switched to the afternoon shift?"

"Yes," he grumbled, and then took me by the arm and led me to an empty corner. "Listen, Dudek. I need some food. I haven't had anything since . . . Can I have some of yours? I'll pay you back."

Puzzled almost beyond speaking, I said "Of course!" then fetched my lunch pail and handed it to him. "Take whatever you like."

He fished around, took out one of my two thick sandwiches, unwrapped the paper to look at it, and apparently satisfied, tore off half of it and put the rest back in the pail. "Thanks, Dudek," he said, already turning his back to me. He walked away, holding the piece of sandwich as if it was precious to him in some way that had nothing to do with hunger.

I saw him again as the shift was close to ending. "Can you bring more food tomorrow?" he asked. He stood crookedly, as if he was too exhausted to straighten his back.

"Mischke, what's wrong? Why can't you get your own food?"

"I'm not coming out. I have to stay down here for . . . I don't know, a little longer. Maybe a few days. It's not ready . . . I mean, I don't think it should come out yet. It might not be strong enough yet. And I have to feed it!"

I felt certain I knew what "it" was, or what Mischke thought it was, and that certainty made me feel sick. I couldn't bring myself to try to confirm my guess, and in any case I doubted that Mischke would answer me if I did. "You can't just stay down here around the clock, Mischke," I said. "The foremen will notice—"

He put his hand on my arm. "Please! I just need food for a few days! Do this for me, Dudek!" It was strange, beyond strange, to see this big man, whose strength and toughness had once seemed limitless to me, reduced to pleading; and pleading not even for himself, but for . . .

"Of course, Mischke," I said. "I'll bring extra food tomorrow."

Things stayed like that for three days. During that time I saw that Mischke had taken one of the empty gunpowder boxes for his own. These were sturdy little wooden crates that the men often used as stools to sit on while eating. Mischke had whittled a few holes in the box, and had tied the lid on with a crisscross of rope. Watching him from a shadowy distance, I saw him dropping bits of food in through the holes. When I left the caisson at the end of the shift each day Mischke would stay behind, hiding in one of the far partitions so the foreman wouldn't notice.

On the morning of the fourth day, a man approached me as I was eating breakfast. It was an Irishman named Quinn, who worked the evening shift and who I'd shared a few drinks with recently. "They caught your crazy friend Mickey," he began. From the story that followed I gathered that Mischke had been noticed as he tried yet again to stay behind in the caisson as the work shifts changed. The foreman had called him a dozen foul names and ordered him into the airlock and off of the jobsite. "So he came up with the rest of us," Quinn said, "but as soon as he was out in the air you could see he was sick—sick with caisson disease. He walked a few steps, and then he was on the ground, like a dead man. They took him to the company hospital on the dock."

Asking after Mischke at the hospital, I was led to a room where there were six men, all lying in narrow beds that were lined up along one wall. More and more men had been getting the disease as the caisson went deeper under the bottom of the river, and there was space in the room for many additional beds.

"Young Dudek," Mischke said to me as I approached, making a weak smile. His head was propped up with pillows, but his body was so limp it looked as if he had been crushed into the mattress by a great weight. "Who would think that I would get the Grecian Bends, eh? I've been down there as long as anyone, and never had even a twinge before." He attempted another smile, and then just lay breathing for a time. "Not a good disease, Dudek. I can barely move. My legs are like dead sticks of wood. They say I will get better, but they don't know. . . . Some get better, some don't." I couldn't think of anything to say that wouldn't have been an insult to Mischke. We both knew that two men had died from the bends in the past few weeks.

Then Mischke's eyes sharpened, fixing on me. "Listen Dudek. I need your help. My box—what I have in the box—I need you to . . ." He stopped, perhaps because of something I allowed to show on my face. Another span of time passed in silence, and



I had the feeling that Mischke was gathering himself for some effort. But when he finally spoke again, it seemed that he was changing the subject.

"They have some nurses here," he said, shifting his eyes to the doors of the big room. "Nice women, very good and kind. But they keep talking to me about prayer; they will pray for me, they want me to pray for myself. Do you pray, Dudek?"

"Not often."

"I used to. I used to feel close to God, sometimes, like he was . . ." with painful effort, he lifted one arm, vaguely indicating a space somewhere beside him. "Like he was right there, with me. I thought about becoming a priest when I was a boy. Then I grew up, I got a wife, and we . . . we had . . ."

Mischke's face was stony, showing no emotion, but he couldn't seem to finish the sentence. Finally he lifted both arms from the bed, bringing his hands near each other, as if cradling something. "When you see death, Dudek, when you see it and hold it, hold it as a *thing* in your hands, and you know it for what it is, something as solid and real as a stone, something that is black and terrible and is always there, always with us, eating out the insides of life . . ." He sighed and slowly lowered his trembling arms. "When a man sees that, Dudek, he does not pray any more."

He lay very still then, so quiet and still that I found myself checking whether he was still breathing. His voice was soft when he spoke again. "But now I have seen something else, Dudek. Something alive, something alive that shouldn't be alive. Something beautiful, and like nothing else in the world. It stands on two legs like a bird, but it's not a bird. And always it looks at me, following me with its eyes. When I take the lid off the box it looks up at me with those eyes and . . . it *sees* me. It sees me as a fellow living being, and its eyes say to me, 'I am alive, Mischke. I am alive like you, and you are alive like me.' Do you understand, Dudek?" Again he raised one arm, reaching toward me, but he was too weak and his arm dropped, hanging off the side of the bed until I moved it back onto the mattress for him. A tear was making a slow trek down the left side of his face, following a deep crease that ran from the corner of his eye almost to his ear.

"What do you want me to do, Mischke?" I asked.

"Just feed it. Put some food through the holes in the box. Some bread, soft meat, maybe boiled egg. Just keep it fed! When I get down there again, I'll take it out. Out of the caisson. I don't know if it's strong enough yet for the outside, but we have to take our chances, eh? It and me both, we'll just have to see."

On my next shift in the caisson I found Mischke's box, pushed into a corner and apparently undisturbed. Mischke had written his name on the side of it with charcoal, the letters rough and almost illegible. The lid was still tied on with rope. I stood looking at it for a long time. In the dim light there was little hope of peering through the holes to see if anything was inside it, and I didn't try. I could have untied the rope and taken the lid off, but I didn't do that either. I just stood looking into the shadowy corner until the foreman yelled at me to get to work. At my lunch break I got down in a squat in front of the box with my back to the nearest group of men. Quickly and furtively I tore up half a sandwich and stuffed the pieces through the holes in the lid of the box. No sound came from inside, but I kept jamming in pieces of bread and meat as fast as I could and then walked away.

I repeated this ritual for three days, and on the fourth day the box was gone. I went to the man nearest me, and then another and another, asking each one if he knew anything about the box. Finally one answered with something other than a blank stare: "Sure, the big guy, Mickey, he had it under his arm when he locked out this morning. He was right there at the shift change—didn't you see him?"

When my shift ended I went to the boarding house where Mischke lived. He wasn't there, and the men he shared a room with said he had packed all his belongings and left that morning. I didn't see him again until four years later.

It was one of the first warm days in the summer of 1876. Though the great bridge itself was still years from completion, the New York caisson was long finished. The vast space that Mischke and I and hundreds of others had toiled inside of was now filled up solid with concrete, and the huge tower of countless tons of stone had been built on top of it. But all of that was behind me. I worked at a bookbinder's now, and I was walking in Central Park, on my way to a concert at the Naumburg bandstand. I had just passed a couple without really looking at them, only vaguely noticing that the woman was carrying a young child on her hip. But after I'd gone a few steps further I heard a gruff voice calling my name. I realized who it was before I'd even turned around.

"Mischke!"

"Young Dudek," he answered, grinning at me.

For a moment, I could only stare dumbly at him. I knew it was Mischke I was looking at, but he was a man transformed. The rough, irregular features were still there, but his face was softer, cleanly shaven and pink. His hair was neatly trimmed and oiled, his clothes clean. Even his eyes seemed less mismatched, and far less imposing. I realized I was seeing Mischke as a happy man, and even as that thought occurred to me he was introducing me to the woman at his side as "My wife Rosalie." The tenderness in his voice left no doubt about the source of his happiness. "And my little one, Anna!" he added, touching his hand to the cheek of the toddler in her mother's arms. "Who could believe I would have such a beautiful family? Eh? Who could believe?" The pride glowed from him like heat from a fire.

For a few minutes we stood there among the trees and grass of the park, talking of our time in the caisson, the progress of the bridge, and about our lives now. Mischke told me he'd used his savings from his caisson wages to purchase half-ownership in a grocer's shop, and had met Rosalie as one of his customers. "She kept telling me how to run the business," he said, "so I told her she better marry me so she can run things herself!" He laughed, and his wife rolled her eyes with an expression that told me this was an old joke between them. Neither of us made any mention of Mischke's last days in the caisson or of the box he took away from it.

As we talked, Mischke's daughter began to squirm in her mother's arms. She pointed down the path to one of the sausage-vendor carts that had recently begun appearing in Central Park. "Ma, Pa," she said excitedly, "get sau'ge for J'zurkie? Get sau'ge for J'zurkie?"

Mischke smiled over at his daughter. "Jaszczurkie has plenty of other food, Anna," he said. "You can feed him when we get home, okay?"

"But sau'ges are his favorite!" Anna protested, but then her mother set her down on the gravel path, and after a few soft words took her hand and strolled out onto the grass with her.

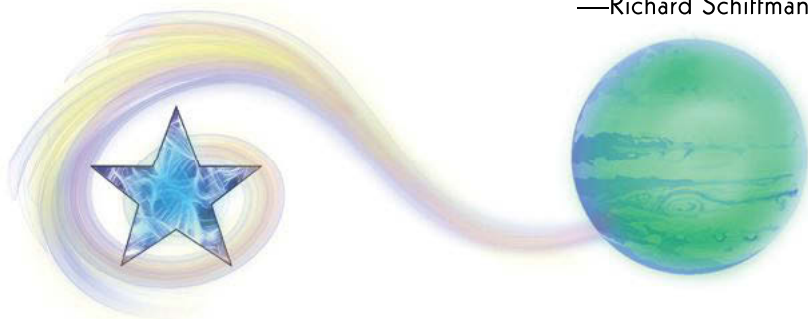
I realized then that the word that was puzzling me was a diminutive of *jaszczurka*, the Polish for lizard. But already Mischke was continuing our conversation, asking me where I was living now and whether I'd met "a nice girl" yet. Distracted, I stammered out an answer. Mischke's only acknowledgement of my befuddled, questioning expression was to give me the briefest of winks before turning to look at his wife and daughter walking hand in hand on the grass. Somehow I knew that was all the answer I would ever get.

We parted a short time later, and I walked on alone. The sun was warm on my face, and the breeze was sweet with the smell of life. ○

# Wobble

Somewhere, untold light years away, a star wobbles, and an astrophysicist on Earth determines that the star must have a planet, and he estimates how large the planet is, and how far away it must be from the parent star, and he speculates that it could have an oxygen-based atmosphere, and a habitable range of temperatures, conditions in which life might potentially take root and evolve an intelligent species not unlike our own, one member of which, at this very moment, may have noticed the slight wobble of our own Sun, and posited the existence of our Solar System, and of the Earth, midway in that planetary array, upon which conditions could be just right to sustain life, maybe even intelligent life, and while that would certainly be a lot to conclude based upon the wobble of an unthinkable distant star, the astrophysicists on both the Earth and that other far off planet would simultaneously feel a little less alone, knowing that there might, just might be a member of some advanced race on another planet on the opposite side of the Universe gazing back at him (or her) and entertaining at least the theoretical possibility of their own existence, and thereby, if not exactly validating that existence, then making it, in an odd way, more palpable to themselves, which is what love also does—that slightest wobble in a heart (yours, hers, or maybe both at once) which proves nothing in itself, but which suggests the possibility that you may have been seen, or at least deemed likely to exist, by some alien, but intelligent life-form at the far edge of your corporeal Universe.

—Richard Schiffman



**Kristine Kathryn Rusch took a halfway hiatus from short fiction these last two years as she finished up the large Retrieval Artist project. Her Anniversary Day Saga, planned at three books total, ended up being eight. As of June 2015, all eight books have hit print. (The most recent is *Masterminds* from WMG Publishing. But the saga starts with *Anniversary Day*.) Kris has returned to short fiction with a vengeance. Stories this year are appearing in *Clarkesworld*, *Fiction River*, *Ellery Queen Mystery Magazine*, *Alfred Hitchcock Mystery Magazine*, and several anthologies. In her latest *Asimov's* tale, a time traveler discovers that reclaiming life's missed opportunities begins with . . .**

# THE FIRST STEP

**Kristine Kathryn Rusch**

**H**arvey DeLeo's arthritic fingers shook as he reached for the small device. The clear case showed the blue workings, moving like liquid crystal. Most people would see shifting fractals.

He saw eternities.

"Doctor DeLeo, don't touch it." Annabelle Sharep, the fifteenth scientist to work on the project, the one whose insight made it all possible, stood on the other side of the lab.

She was a thin woman with a sharp chin. Because of that chin, he got her name wrong for the first year they worked together: he would call her Anna Sharp, and she would have to correct him.

Once she started chuckling and calling him the ultimate absent-minded professor, he learned her name. Or maybe he learned it because she was one of the few he had hired who could actually keep up with him mentally, someone who didn't harangue him, or tell him his hours were too long, or fret that he would damage his health.

The time for fretting had passed years ago.

And now, on its little protected pad, the device thrummed with life. In it, Annabelle saw futures.

With the device, they had sent pennies forward in time. They had sent cameras forward that recorded every image, except the images he wanted. The ones that had recorded the actual journey. It looked as if nothing had changed as the cameras

traveled through time, as if the cameras had just stayed on the platform, and the scientists had been the ones who moved.

Finally, DeLeo and Annabelle had used actual living creatures to see if they would survive the journey. After the earthworms had survived, after the cockroaches had survived, after the rats had survived, DeLeo and Annabelle had taken the experiment to the next level, sending creatures two days into the future instead of five minutes.

DeLeo had been the one who decided to send creatures to the past to see what happened.

Those were the experiments that showed time travel operated differently going backward in time than it did going forward. If an object already existed in the past, the object being sent back would become a ghostly reflection of itself.

Those had been the only experiments that freaked out the rats—DeLeo and Annabelle soon realized that cockroaches and earthworms weren't self aware enough to get freaked out. Or perhaps DeLeo and Annabelle didn't know what a freaked-out cockroach looked like.

Those experiments also led to the occasional death, particularly among the rats. DeLeo wasn't a biologist, so he didn't know if the freaked-out rats had ended up with scrambled thoughts, or if that ghostly separation had caused an actual physical reaction.

Annabelle had started a partnership with some colleagues in biology to see what was happening on a molecular level.

DeLeo didn't really care. One trip to the past would be worth an early death, at least for him.

DeLeo's fingers hovered over the device. He had to activate it, and simultaneously put his hand flat on the white disk Annabelle laughingly called "the launch pad." He wasn't sure the launch pad was big enough to handle him. He wasn't sure what would happen to his body when he did this. He wasn't sure if he would destroy the whole project with this attempt.

But none of that would stop him.

"Doctor DeLeo, don't touch. It's too soon," Annabelle said. "We've had this discussion." They had, too.

At every point along the way, they had had some version of this discussion.

*Inventors shouldn't be the first to use their inventions,* Annabelle had said one afternoon.

*Alexander Graham Bell did,* DeLeo had replied.

*He invented the telephone,* Annabelle had said. *It couldn't hurt him.*

*We know that now,* DeLeo had said. *They didn't know it then.*

*It's not the same,* Annabelle had said, *and you know it.*

Maybe DeLeo did know it. Maybe he didn't. He had theories about what happened to the creatures that went to the past and appeared with a ghostly sort of shape. He believed that shape was a manifestation of their consciousness—and yes, he believed all living things had a consciousness.

Annabelle didn't. She thought that matter somehow arrived in the past, then discovered it was already there—and that was where DeLeo tuned her out every single time.

As a young scientist, he would have listened. He would have argued, if need be. He would have *learned*.

But he wasn't doing this for the learning. Or the glory. Or even for a second success.

He was doing it for one moment.

He activated the sequence he had already programmed into the device and placed his palm on the launch pad. Annabelle was screaming at him. Other lab assistants were running through the open door.

They became insubstantial, and then they whisked away. The room became what it had been forty-five years before, a gigantic old classroom filled with wooden desks, initials and graffiti carved into the seatbacks. To his right, the old closet that he would later transform into his new office.

There was no device here, no launch pad, and probably no elderly Doctor DeLeo, although he seemed substantial enough to himself.

He was standing alone inside that classroom and he thought he smelled chalk. He probably didn't. It was most likely a sense memory, but he didn't care.

He knew he had to move quickly.

The classroom's door stood open, as all of the rooms did at this time of day—just after eleven P.M. as the janitor made his rounds. Amazing the trivia a man still remembered after forty-five years of living. A human brain slowly filled up with useless junk.

Who knew that an ancient, irrelevant detail would become so important now.

DeLeo walked through an aisle between desks, then out the door into the wide corridor. The floor was the gray and black 1950's tile that had first suggested the device to him—back when his office was three doors down. He walked past that office and couldn't resist a glance.

There he was, his thirty-year-old self, hovering over some components that the elderly DeLeo didn't even recognize.

A familiar sadness squeezed his heart. He paused, thought about all the time paradoxes—if he said something, if he gave a hint about the future, if he even gave his old self a heads-up about the present—what would change?

DeLeo didn't want to risk changing anything.

This day, the next hour, were the reasons he had built the device. Not so that graduate students in religion could travel back to Christ's crucifixion to see if it really happened as the Bible said. Not so that historians could add to their dissertations by actually speaking to Thomas Jefferson. Not so that techs could fruitlessly try to modify the device so that someone could finally shoot Hitler.

DeLeo had built the device for this, this short future—or this short past—or this short whatever someone wanted to call the next few minutes; *this* was the reason the device existed. He had a hunch no one would ever know what he had done, what his motivations were, why he had used the device before it got tested all the way up the biological food chain, hell, before all the computer modeling was even finished.

He had a hunch he would die before he could tell them.

He was seventy-five years old with a defective heart, and a possible death sentence, and if he waited for everything to be perfect, he would make the same mistake twice.

DeLeo went down the stairs like he used to as a young man, almost running as he bounced his way down. The old corridors, the old wooden doors, the old janitor (who was probably younger than DeLeo was now) pushing a bucket into the men's room—how many nights had DeLeo seen this very scenario and never really noticed it?

His one worry—the exterior door—stood open, sending in chill January air. It smelled of snow, although he wondered if that, too, was his imagination.

He crossed the quad to the graduate student housing, half expecting the students he passed to yell, "Hey, Prof, what're you doing outside the lab?" like they did these days or in the future or whenever now really was.

But the wind was strong, and everyone had their heads bowed against it, hoods pulled up over their faces. They weren't looking at him.

The campus had dimmer lighting, less of it too, before the anti-violence advocates finally convinced the administration that a well-lit campus was a safer campus. (It turned out to be true.)

Still, even in the semi-darkness, he could find his way to that little house, attached on each side to other little houses with their paper-thin walls and overactive heating systems. That pre-World-War-II housing got torn down twenty years ago or would get torn down twenty-five years from now, and (would be) replaced with a big athletic center. Whenever he saw the glistening thing, his heart squeezed sadly, painfully.

He preferred these drab little buildings with their yellow incandescent lights spilling out into the postage-stamp yards. Those little buildings had hope, and possibility.

The real kind, not the athletic kind.

He walked up his old front porch, knowing the doors wouldn't be open. Margery had always kept the doors closed and locked when DeLeo wasn't home, which meant the doors had always been closed and locked.

But the windows were open, because that little house was always fifteen degrees too warm.

He settled near the picture window, and waited.

Margery walked into the room, wearing a pair of sweatpants and one of his old T-shirts from Cal-Tech. She looked tired and, oh, so beautiful, still a bit of baby weight on her hips.

Then he heard it, that familiar little voice, one he had forgotten after it had gotten replaced decades ago with a deep baritone: "Maaaaa?"

She laughed and turned, looking in the direction of the coffee table.

DeLeo couldn't see anything. His eyes filled with hopeless old man tears. All of this, and he couldn't see anything.

He stood on his tiptoes, and finally, the baby came into view. Not a baby any more. That nanosecond between infant and full toddler, right on the brink. His son Richard, named for DeLeo's father, the warm man who had done his grandfather duties right, thank heavens, because Richard had needed a male role model, and DeLeo hadn't been it.

"Maaaaa," Richard said, chubby hands reaching, grasping, clutching.

DeLeo wiped at his eyes furiously. He had to see this without tears. He had to see. . .

Richard's fingers caught the edge of the table, and pulled. DeLeo's breath caught. His son rose just an inch, then tumbled backward.

Margery started to go to him, but stopped as Richard—determined even then—sat back up. He adjusted his diaper-clad bottom, got on his dimpled knees, and placed his hands firmly on that table. Then he lifted himself up, one shaky limb at a time.

Margery put her fingers over her mouth. Richard gave her a toothless baby grin.

DeLeo frowned. He hadn't come for standing. He had watched Richard stand once before way back then, although to be honest, DeLeo hadn't paid much attention.

*Yeah, yeah*, he'd been thinking at the time. *A baby standing. So what?*

So what. He got to see his pretty wife again, that's what. And his pure perfect infant son.

DeLeo swallowed hard now, stared. Margery didn't move. For a moment, DeLeo thought she could see him, but she was still looking at their son. At *her* son. DeLeo had just contributed DNA, really. Never home, never there, never thinking about them. All charges—accurate charges—in the divorce. If only he had been home. If only he had cared—even a little—for the small things.

If only he'd understood that precious events happened only once.

Richard waved a hand, looking sideways. He clearly saw the old man at the window, probably thought that was his Grandpop, and gave DeLeo a big toothless grin. DeLeo smiled back, hoped his loitering there wouldn't change the moment.

Then Richard turned toward his mother, used the flat surface to keep himself upright and leaned-walked toward her. He reached the edge of the table and kept

going, walking, stumbling really, moving with determined little steps, and falling into her arms.

Six seconds, maybe less, seconds she had brought (would bring?) up in an argument two days later. Until that fight, DeLeo hadn't even known his child—the boy that would be his *only* child—had taken his first steps.

First steps missed, like the first word, and the first day of school, as well as the last day of school and the first graduation ceremony. The first date, the first prom. DeLeo made it for the first (only) marriage, but not the birth of the first grandchild or the second or the third, and all of those first steps, first words, first loves. He was not the grandfather his own father had been, and DeLeo wouldn't have known how to try, even though, by then, he wanted to.

All those missed events—only seconds long, really—all that missed time.

He wasn't making up for it here. He had hoped (deep down) there might be alternate timelines, ways of influencing, maybe even becoming, someone else, but there weren't. Just the ghostly consciousness, and the observation.

And, as the experimentation had revealed that, DeLeo had realized he would only get one vision, one visit, one missed event, and he had thought and thought and thought about which one to choose.

He had finally decided on this one, the one that still made his heart squeeze when he heard the phrase “baby's first . . .,” the first missed event he really and truly regretted.

Not that it changed anything. For anyone except him.

Voices sounded around him, and he saw a ghostly lab slowly superimposing itself over his old home. He would return to the lab in a heartbeat.

He made himself focus on that living room, instead of the encroaching lab, on his wife, her arms around their son, praising him for his toddling steps, and the boy, squirming to get away and do it again, so very Richard, even back then.

His wife reached for her phone to record this moment—the second attempt at walking. She would prove successful, and the time stamp that DeLeo had stared at over and over again had proven to be accurate.

DeLeo had worried that this moment, these six seconds, wouldn't live up to his expectations. He had worried that an old miracle, one so obvious, one completed by most human babies, completed by Richard's babies and to be completed by their babies, would seem anticlimactic.

But it wasn't.

DeLeo used to think he had lost eternities of precious time, but he hadn't.

He had worked an eternity to gain an eternity.

In six seconds.

And at the end of them, just before the lab became the only reality, DeLeo's baby boy—the baby his boy had been—the *happy* baby his boy had been—raised his tiny fists in triumph and joy.

Like DeLeo used to do whenever he succeeded.

No one had told him Richard had done that.

Maybe no one had noticed.

But DeLeo did.

At the last second of his eternity. Making each and every moment of his entire lifetime worthwhile. ○



# Physics

Dark matter, my love.

I spin in your circles,  
I loathe your gravity:  
Yet I come back to you,  
As a woman seeking  
Forever the grace of her abuser,  
Lying to herself,  
Hating the lies, comforted  
By their familiarity.

Dark matter, my love.

I sense your theory ever around me,  
The embrace of the possible,  
Or only the likely, your coldness  
All in this world I need,  
The beginning of me, and the end of me.  
You seep into my existence  
And I am replaced with your  
Unforgiving.

Dark matter, my love.

I am unknown in your universe.  
Control me. Compel me.  
Know that I am  
What you become, how  
You sense yourself: the softly glowing hair  
That colorlessly bristles as time brushes  
Your long, universe-hoarding arms.

See the light of me.  
I am your only thought.

—Ken Poyner



# A THOUSAND NIGHTS TILL MORNING

Will McIntosh

**Will McIntosh can be found on Twitter @willmcintoshSF and online at *www.willmcintosh.net*. His latest novel, *Defenders* (Orbit Books), has been optioned by Warner Brothers for a feature film. His previous novel, *Love Minus Eighty*, was named the best science fiction book of 2013 by the American Library Association, while his debut novel, *Soft Apocalypse*, was a finalist for a *Locus* Award, the John W. Campbell Memorial Award, and the Compton Crook Award. He has published short stories in *Asimov's*, where his fiction has picked up two Readers' Awards and a Hugo (for "Bridesicle," January 2009), *Lightspeed*, *Science Fiction and Fantasy: Best of the Year*, and elsewhere. Up next is a Young Adult novel, *Burning Midnight*, to be published by Penguin Random House. Will lives in Williamsburg, Virginia, with his wife and their twins. His thrilling new novella depicts the consequences for what's left of humanity after a brutal alien invasion.**

## Chapter 1

**S**hakia slid a thick folder across the table to Aiden while the rest of the colony leadership sat hollow-eyed and silent.

"What is this?"

No one answered.

Aiden flipped the folder open, wishing he could have a shot of scotch—or what passed for scotch on Mars Colony—before he read it. He knew it must be bad, but with two plagues currently tearing through Earth's population, killing billions, he couldn't imagine how things could get any worse.

He took a deep breath and leaned in toward the printout.

They weren't direct communications—they were intercepted radio communications, both civilian and military. A buzzing numbness, like a full-body shot of Novocain, settled over Aiden as he flipped through the pages.

*Transparent beings, releasing biological weapons that collapsed lungs, dissolved tissue, interrupted neurological function.*

*Two-legged, four-legged, eight-legged; insect-like, yet humanoid.*

*Overwhelming force. Staggering losses.*

*Attempts at surrender unsuccessful.*

*No response from Moscow.*

*No response from Shanghai.*

*No response.*

*No response.*

Aiden pushed the printout across the table and lurched to his feet. He'd just been thinking about Chicago, pining for a slice of deep-dish pizza, missing his sister, his friends.

They were all gone. All dead. He had no home to return to. He was trapped in these tunnels.

Commander Manes looked up at him. "You have to tell them."

"What? Who?"

"Everyone who's not in this room. You have to find a way to break this to them that won't send half the colony racing for the airlocks without pressure suits."

"I can't do that." No way. There was no way.

Manes raised his chin until Aiden could see into his hairy, flaring nostrils. "You're the only mental health professional on this mission. You need to take care of the emotional side of things while we take care of everything else, including figuring out how we're going to stay alive with a poisonous environment outside and no one coming with fresh supplies." Manes stood. "I've called an assembly. You have thirty minutes to figure out how to deliver this news."

## Chapter 2

**S**taring at himself in the bathroom mirror, shirt already damp under the armpits, Aiden took another shot of scotch. He'd already taken a hundred milligrams of Xanax washed down with his first shot.

He'd prefer to face this feeling sharp-witted and clear-minded, but that was out of the question. There was no way he could do this in an unmedicated state.

Everyone was probably already in the common room, or one of the other two largish rooms in this hellish habitrail, waiting for Aiden to perform a psychiatric miracle. The thing was, depression and suicide were perfectly rational responses to their situation. Everyone they'd ever known, everyone they'd ever loved, was dead. His sister Eva, his godson Calvin, were dead.

Aiden unscrewed the top and took another shot of scotch, then rinsed with mouthwash.

The insane part of this was, objectively speaking, he'd been just as anxious on his first date with Penelope Lassaly as he was at the thought of conducting this intervention. His heart was *always* racing, his colon always cramping.

Even the despair of losing everyone he'd ever loved couldn't drown out the relentless anxiety. It made his anxiety worse, in fact. Knowing he'd never again sit in Eva's kitchen drinking coffee, laughing, drawing courage from each other . . . that made it much worse.

The room was packed, yet utterly silent. Aiden's footsteps were audible as he climbed to the raised platform assembled in the corner of the commons room and stood behind a folding table.

Aiden looked into the hollow-eyed faces of the surviving members of the human race. Gage and Shakia were at the front. He knew they thought seeing friendly faces would help him get through this, but the truth was, having his closest friends watching only made his anxiety worse.

Heart racing, he cleared his throat. "Good morning. I'm not sure—" His mouth was so dry he had to stop to take a drink. Only, when he lifted the glass the water in it sloshed so violently that he set it back down immediately. He would spill the water all over himself if he tried to drink.

Licking his parched lips, he cleared his throat again. "I've been trying to think of how to say what I have to—"

Aiden unbuttoned the top button of his shirt. He couldn't breathe. There wasn't enough oxygen in these tiny rooms.

"We've suffered a loss of such magnitude . . ."

A bead of sweat dripped from his eyebrow onto the table. He looked at the camera, which was transmitting this to the other two large rooms.

Only they weren't large rooms. There were no truly large rooms in the entire settlement. He watched as the beige walls around him seemed to squeeze in, in, before releasing back to their original position, as if the room itself was struggling to breathe.

Aiden bolted down the steps, jogged to the door.

"Aiden?" Shakia called after him as he headed down the cramped hallway.

When he got to his room he locked the door behind him, fell on his bed face-first. He wanted to go home. He wanted to go home to Chicago.

### Chapter 3

"**T**here he is."

Aiden turned. Gage was heading toward him, eyes bright, arms swinging like he didn't have a care in the world.

"Dinner? Assuming you have any appetite."

Aiden made a face. "I haven't had an appetite since I got here."

Gage clapped him on the shoulder. "Hang in there, my friend. We'll get through this."

"There's no getting through this." Aiden winced at the whiny tone of his own voice.

A dozen people were milling around the cafeteria when they arrived, including Shakia. The kitchen staff was missing. No dinner was prepared. Aiden wasn't surprised.

They foraged, grabbed a loaf of bread, olive oil, raw carrots, and a scoop of vat meat.

Shakia and Gage sat across the table from him, so close their shoulders were almost touching. Aiden suspected their newfound friendship was of the "with benefits" variety. It would be Gage's second affair since leaving his wife and two-year-old daughter eight months earlier, although at this point it was no longer infidelity, because his wife and daughter were dead. Still, the affair stung Aiden. It would be so much easier to get through this with someone to lean on, someone to hold, and Aiden had met Shakia first.

Gage bit into a Mars-grown carrot. "Well, thank God for this mission. If it wasn't for TV-188—"

Aiden raised his fork. "Before you say it: I doubt there are anywhere near enough people here to stave off the extinction of the human race."

Gage stopped chewing. "What do you mean? Why not?"

Shakia didn't look surprised. She chewed slowly, and swallowing looked like an effort. Setting down her fork, she said, "Less than three hundred people? We'd have to be awfully lucky. One bad flu season, or a war, could wipe us out." She was so obviously brilliant. A security expert who could converse about genetics, sociology, psychology. She was also beautiful. Her skin was incredibly, strikingly dark, her cheekbones sharp, her eyes catlike.

Gage looked skeptical. "A war?"

"We weren't far from a war a couple months ago, when the pub was getting too crowded, and the scientists and meteor cowboys wanted to make it professionals only." Aiden still got chills, remembering the first time he'd come across protest graffiti scrawled in black spray paint down the length of a hallway: *No Fucking Country Club on Mars*.

Graffiti. On a life or death mission to Mars. The sort of people willing to sign on to four years in a hamster run weren't necessarily the most highly functioning and psychologically healthy individuals.

"We're trapped on a planet with a hostile environment," Aiden went on. "Not exactly optimum conditions. On top of that, the risk of passing on genetic mutations skyrockets in such a tiny population."

"Paula Peavy would be the one to ask about the numbers," Shakia said.

Aiden pointed his fork at Shakia. "That's true." Paula could come up with an estimated range. Aiden would bet anything her magic number for species survival would be higher than three hundred under these conditions.

Gage looked like he was going to vomit. That made two of them. Three, probably.

"It's still ironic, though. We volunteered to risk our lives, came all this way to deflect an asteroid so it wouldn't wipe out the human race, and *we're* the ones who end up alive." Gage covered his eyes. "And have you heard the cherry on top yet?" He looked at Shakia. "Have you told him?"

"I haven't gotten a chance yet." Shakia turned to Aiden. "TV-188 is going to miss Earth. At least, the odds of a hit plunged on the last assessment."

Aiden barked a dry, bitter laugh. "So we came all this way for nothing. If there was a human race to return to, we wouldn't have returned as heroes, only as an insurance policy that turned out to be unnecessary." People would have started going home now. Not everyone, but some. If not for the Nunki. That was the star system the invaders apparently came from, so that's what people were calling them.

"It's a shame the asteroid is going to miss Earth, actually," Aiden said. "Not that I'd want to see nearly every plant and animal on the planet wiped out, but it would sure ruin the Nunki's day." He raised a finger. "Wait, I know! We could deflect it *into* Earth, instead of away from it." Aiden laughed, but Gage and Shakia didn't laugh along, so he stopped. Maybe the joke was in bad taste. He'd thought it was funny, if in a dark, gallows humor sort of way.

"That's a marvelous idea," Gage said.

"I—wait, what?"

Gage was staring at the ceiling, nodding ponderously. He looked at Shakia. "Don't you think?"

Shakia, who was sitting very still, just stared down at her hands.

Aiden leaned forward. "I was *joking*. If we did that, the Nunki would immediately know we're here. They'd come and kill us all."

"It would be worth it." Gage leaned in, lowered his voice. "And maybe they wouldn't come after us. What if the impact brought them to their knees? I mean, they'd be in darkness, dealing with freezing temperatures, their food supply drying up whether they eat animals or plants—"

"Maybe they eat dirt," Shakia said.

"Maybe they do. And if they do, they wipe us out." He gestured at Aiden. "You said it yourself: we're going to die anyway. Let's go out fighting."

"Our *species* is going to die. That doesn't mean we won't live another forty years, and our children another sixty after that, and their children—"

Gage folded his arms. "Sixty years? With no antibiotics? No *aspirin*?" He shook his head. "Not a chance."

Gage was right about that, at least. They had seeds, could grow vat meat. Their crops provided oxygen. But they'd quickly be living in painfully primitive conditions. How would they make shoes, or toothbrushes?

Jesus. There'd be no more Xanax.

Gage stood. "I'm going to suggest it to leadership."

"Go ahead," Aiden said. "They're not going to get behind something that amounts to mass suicide."

## Chapter 4

Aiden knocked on the door to Commander Manes' office.

"Yep," the commander called through the door.

Aiden had to walk around Manes' desk to see him. Manes was sitting on the floor with a book, *Zen Flesh, Zen Bones*, open beside him. He was looking out the window at gunmetal gray stones scattered across a rust-colored desert. It looked as if he hadn't shaved in about three days, but as he turned, his eyes were alert. The unfocused stare and stunned, haunted look was gone.

"You're not seriously going through with this," Aiden said.

Manes smiled. "From what I understand, it was your idea."

"I was joking."

"Well, some of the best ideas and the meanest insults come disguised as jokes."

Aiden leaned against the edge of Manes' desk. "If you let them do this, it's not only us who'll die. What about elephants, and dogs? Trees. Grasshoppers. We're going to wipe them all out, along with ourselves, for revenge?"

Manes picked up the book, opened it at random. "I found this in Kaisa Puhakkah's room, after we cut her down. It's helped me make sense of things." He thumbed through a few pages. "One thing it taught me is that nothing is not a bad thing. Sometimes nothing is better than something."

"No it isn't. Art is better than a blank wall. Music is better than silence." Aiden pointed at the book in Manes' hands. "That philosophy you're quoting isn't nothing, it's *something*."

It was predictable for people to seek meaning when faced with despair. Manes was simply finding a way to cope. But his coping mechanism was leading them all toward oblivion. Of course if he'd picked up a Bible instead of a Zen primer he'd be saying everything was fine, because they were all going to heaven.

"The Universe will survive without us." Manes pointed at the Martian landscape outside the window. "There's art right out there."

And poisonous air.

Aiden envied his peace. He wished he could find serenity in this stifling habitrail. He wasn't capable of that degree of self-delusion, though.

"If you want something more concrete, let me offer you this: Even if I wanted to stop this, I couldn't."

That didn't surprise Aiden. Alliances were forming; there were rumors that some of the asteroid cowboys wanted to take charge and force every woman in the colony

to pair up with a man and discontinue birth control. Regardless of her wishes, or sexual orientation.

Maybe he should work on the scientists first. The asteroid wouldn't pass Mars for another two months. Still time to talk them out of it.

## Chapter 5

The pub was packed. It was always packed. The floor was awash in spilled beer, and people were sitting under and on top of tables. The stink of unwashed bodies in seldom-washed clothes was gag-inducing. Normally it would have been impossible for Aiden to tolerate such claustrophobic conditions, but because it was a bar he could compensate by drinking heavily, and thus dampen his anxiety. Somewhat.

He took a swig of scotch and wondered how long it would be before the Nunki came for them, after the asteroid hit. Twenty-four hours? Less? Some people thought the Nunki might not even notice the nuclear explosion that would nudge the asteroid's path. That seemed wildly optimistic to Aiden. A species capable of interstellar travel would have noticed the asteroid and calculated its trajectory to the inch. When it suddenly changed course and hit them, they'd notice.

How would they be killed, Aiden wondered? Nunki technology was heavily biological in nature. They'd engineered and released two separate plagues, allowing them to devastate the world's population, bringing Earth to its knees before humanity even knew they existed. Everyone had thought the plagues were the work of some rogue nation, or heavily financed terrorist group. But that had never made sense, really. The plagues were too perfect to be the work of humans.

If he was going to die, he so wished he could die on Earth, in Chicago. He missed his city, his friends, the smell of auto exhaust mingled with hot dogs and soft pretzels from sidewalk vendors' carts. But mostly he missed Eva, and his godson Calvin. Calvin had been more than a nephew to Aiden. More like a son.

Aiden looked across at Gage and Shakia, who were making out like teenagers. If he wasn't so drunk, he would be jealous, but all he felt now was a melancholy affection for his two doomed friends.

"You know, Gage," he shouted over the din, "I've never thanked you for talking me into volunteering for this. If not for you I'd be dead right now."

Gage raised an eyebrow, his head weaving drunkenly. "Don't thank me, thank Penelope Lassaly."

The name startled Aiden. "What are you talking about?"

Gage looked at him as if he was an idiot. "In a million years I couldn't have talked you into signing up. You were dead-set against it until Penelope dumped you, then suddenly you had a change of heart."

Shakia reached across the table, stroked Aiden's head. "Aw. Did someone break your heart?"

Aiden jerked his head out of her reach. "You're suggesting I signed up for a five-year mission, to *Mars*, because a woman dumped me? How neurotic and insecure would I have to be to make that enormous a decision based on something so trivial?"

Gage burst out laughing. "Pretty damned neurotic and insecure."

Aiden stood, his chair bumping to a stop against someone standing behind it. "Fuck you, Gage. Where did you get your psychiatry degree again?"

Aiden turned to leave.

"Aiden." Gage jumped up, grabbed his shoulder. "Come on, don't get mad." He spread his hands. "I'm drunk. I say dumb things when I'm drunk."

Aiden sat, mostly because he didn't want to look like a giant baby in front of Shakia. But he was still fuming. Of course it had been Gage. Gage had painted such a glorious picture. He could still see Gage's eyes shining with excitement, could hear the crack of emotion in his voice. *Carpe diem, buddy. Let's save the world. They'll carve our faces on Mount Rushmore. All three hundred and six of us.*

Gage hadn't talked him into this? Bullshit. Gage had always been able to talk Aiden into things, ever since they were kids. They were best friends until seventh grade, when Gage became too cool for Aiden. When just about everyone became too cool for Aiden. He didn't speak to Gage again until they were almost thirty, when they bumped into each other at the dentist's office, of all places, and dusted off their atrophied friendship. Hard to believe that had been almost ten years ago.

"So who was this woman?" Shakia leaned forward, rested her chin on folded hands.

"Oh, just one of many women who couldn't handle my disorder."

"How do you know it was your disorder?" Gage asked. "Has it occurred to you that some women may not be interested in you because you're short and hairy?"

"Oh, I *know* a lot of women aren't interested in me because of my physical appearance. But those are easily observable features, so if they're the issue a woman will reject me on the spot."

Gage reached up, feigned wrapping his hands around Aiden's throat. "Jeeze, would you lighten up? I'm *joking*. What I'm trying to say is, you have no idea why Penelope broke up with you."

Either Gage was trying to make him feel better, or he was incredibly naïve when it came to human motivation. Probably a little of both.

## Chapter 6

For some reason Aiden noticed how filthy the floors in the hallways were. A thick layer of dust lay along the edges, where people didn't walk. He passed a tray, dirty dishes, and utensils strewn in a corner. Small things like cleanliness understandably fell away when you were committing mass suicide by dropping a ten-kilometer-wide rock on an aggressive, highly advanced species.

It would be a relief, in many ways, to be dead. He would be truly at peace for the first time in his life, feeling not the slightest twinge of anxiety. What he was most afraid of was that dying would hurt. If the Nunki blasted a hole in their habitat, the air would rush out, and the moisture in Aiden's eyes, mouth, and most importantly the alveoli of his lungs, would boil away. It would take one to two excruciating minutes for him to die.

If he could time it right, he could kill himself with the last of his Xanax before the Nunki got him. He'd need some warning that they were coming for that to work, though.

As he passed across Main Street—the central tunnel in the habitat—music and laughter drifted down the tube from the pub. Another party, in celebration of a direct hit. In celebration of the death of their planet. Every night, a new party. It seemed as if everyone had been drunk for the past eight days.

As Aiden passed the closed door to the command room, he heard talking inside. Bursts of static accentuated the speaker's S's, as if it were a radio transmission instead of a live person. There was no one to send radio transmissions now, though. Unless the Nunki were sending a message to say they were on their way.

The door was unlocked, the room dark except for the red and white lights on the radio.



A woman's voice was coming from the radio.

*"We've had no contact with the Nunki since the impact event. No idea how it's affecting them. All we know is, they're no longer sending food in through the wall. The wall appears to be dying, in fact."*

*"Before the impact we didn't dare contact you. We didn't want to give you away, and anyway there wasn't much point. But if anyone is still alive up there: there are survivors in Chicago—"*

Aiden grasped the doorframe to keep from falling down.

Chicago?

He looked out the door as the transmission went on. A couple, arm-in-arm, was weaving down the hall.

*"Hey."*

They kept walking.

He ran into the hall. *"Hey!"*

The couple stopped, turned.

*"Get the commander, or Mahajan. Anyone you can. There's a transmission coming in from Earth."*

The couple took off running. Aiden turned back to the transmission. He should be recording it, but he didn't know how to turn on the recorder. Hopefully whoever had sent it was standing by for a reply.

*"—some way, any way, to transport survivors there? Otherwise, I don't think we'll live much longer."*

A rescue mission? That's what they were hoping for? Aiden couldn't imagine how Mars colony could support more than a handful of additional people. If they did send a mission down, though, Aiden was going. Eva and Calvin were in Chicago. Plus, friends. Even if it hadn't been Chicago, he would want to go. He bore some responsibility for what they were going through.

## Chapter 7

**E**ven at age eight, Aiden's godson Calvin had been an athlete, the star of his little league baseball team. It had astonished Aiden to watch someone who shared his genetic material excelling in a sport, because he, Eva, and their parents had all been alarmingly uncoordinated. Once when Calvin hit a triple down the line, Aiden had felt such a rush of exhilaration watching Calvin sprint around the bases he'd begun to hyperventilate, and had to find a plastic bag. In a day or two Aiden would know if that little athlete was still alive.

When *Red Two* touched down, Aiden unstrapped himself and hurried into the hall to a view screen. All he could see was the silhouette of a row of buildings in the darkness. If they'd landed in Grant Park, on the edge of Lake Michigan as planned, that would be South Michigan Avenue. As dark and uninformative as the scene was, he preferred it to the views they'd been getting on their voyage, of Earth as a hazy grayish beach ball, the swirling blue and white all but obscured by the dust cloud.

How many Chicagoans had died since the asteroid strike, he wondered? Each of those deaths was on his head, or, more accurately, on his big mouth.

*"There he is."*

Aiden turned. Gage was heading down the hall. *"I've been looking for you."* Gage clapped Aiden on the shoulder, considered the view screen. *"Ready?"*

Would the survivors be grateful to Mars Colony for crashing an asteroid into Earth, or hate them for it? The strike had snuffed out 99.9 percent of life on Earth. Maybe they'd brought the Nunki to their knees, but they'd also wiped out every tree,

every flower, every turtle and giraffe and chipmunk, to say nothing of a large percentage of the surviving human population.

"You ready?" Gage repeated.

"No."

Gage's brow clenched. "Me, neither."

Somehow Aiden had forgotten for a moment. Gage's family lived in Chicago. Hiro-mi, and his daughter Lilly. During the year they were on Mars, Gage hadn't *acted* as if he had a wife and child at home, but that didn't mean he didn't care about them.

Aiden had known there would be no stars or moon visible; what he hadn't expected was how *low* the sky felt. It was as if they were in a freezing-cold cave, the roof just out of sight. It was so damned dark. If not for the spotlights, Aiden would have to hold his arms in front of him to keep from walking into things. If Mark Adlerberg was right, daytime would be slightly better, but not much.

The silence was startling as well. No birds, no crickets, no distant *whoosh* of traffic or hum of streetlights.

Someone turned a spotlight toward the tree line that bordered the snow-covered ball field they'd landed on. The ground was covered in a layer of black dust, particulate matter kicked up by TV-188, settling to the ground. The trees were branchless skeletons, knobby exclamation points. The sight made Aiden sick.

Dead. Almost everything was dead. Their climatologists and biologists suspected rats were hanging on, and small numbers of hay-eating animals that could dig through the snow to reach dead grass and vegetation, but not much else. It was going to take time to adjust to that reality.

"Captain?" Anatoly Belikovsy called.

Captain Mahajan, who looked like she'd been in a trance, turned to Anatoly, who was pointing toward South Michigan Avenue.

Three people were approaching out of the darkness. They were gawking at the ship, which always reminded Aiden of a giant red water bug.

"You're from the Mars colony?" a woman asked. She had long black hair, brown skin.

Dozens of crewmembers converged on the trio, everyone asking questions at once. Captain Mahajan pushed her way through, calling for everyone to quiet down.

"We are, yes. Are we safe from the Nunki here?"

"Do you have food?" the man asked. He had a thick gray beard, a pocked nose.

The captain turned. "Someone get them food." When no one moved, the captain scanned the faces around her. "Joshua, get some rations, please."

Sighing audibly, Joshua headed toward the ship. When he was clear of the crowd he began to jog. Aiden couldn't blame him—no one wanted to miss this moment. They were about to find out whether there was any chance the human race could survive.

"Come on, tell us what's happening," Gage called from the periphery.

"The Nunki are a mess," the dark haired woman said. "The wall is dead. All of their buildings are dead—"

"Hold on," the Captain said in her clipped Indo-British accent. "What do you mean, dead?" The original transmission had mentioned a dying wall as well. None of them had been sure what to make of that, and they hadn't received any more transmissions.

The woman pushed the end of the scarf she was wearing over her shoulder. "Dead. Everything they build is alive. The wall was alive, and now it's not."

Mahajan frowned, waited for her to go on.

"A lot of the Nunki headed south where it's a little warmer, but there are still some around. Mostly they stay away from the city. When they catch people foraging out there, they kill them as likely as not, or drag them off and do who knows what to them, but there isn't much food left inside the city, so what choice do we have?"

Some of the crewmembers had peeled the other woman away and were speaking with her in low voices a few yards from the main group. Aiden sidled over to listen.

"No. They killed everyone, except they left Chicago alone for some reason."

"Why Chicago?" Mark Adlerberg asked. He was standing closest to the woman, looked to have initiated the splinter group.

"I don't know." She was a tall, big-boned white woman. "Chicago was hit hard by the first super-virus, but half or more of us were still alive before the asteroid hit." She raised her eyebrows. "Some people thought you did it on purpose."

"We did," Aiden said. "Did it help, do you think?"

The woman's lips were cracked and pitted. "It didn't make things any easier, if that's what you're asking. It hurt the Nunkis bad, though. I guess it depends on your point of view." She looked up. "Is the Sun ever coming out again?"

Mark nodded. "The debris should start clearing in another two to three years."

The woman inhaled raggedly, let her head sag. "I'd give anything to see the Sun. Just for an hour. I hate the dark." As Aiden turned to return to the larger group, she added, "I used to be such a carefree person. I used to joke and laugh all the time."

A hand rested on Aiden's shoulder. It was Gage.

"I'm going to look for Hiromi and Lilly. Come with me?"

The idea startled Aiden. "Mahajan isn't going to let us wander off. She'll want to organize teams."

"Fuck the teams." Gage looked off into the blackness. "If my family is out there, I want to reach them as soon as I can. There are plenty of rifles for everyone." He clapped Aiden's shoulder. "Come with me. We'll look for your sister, too."

He wanted to find Eva and Calvin as soon as he could, but the idea of venturing into that freezing darkness with just him and Gage opened a pit of dread in his stomach. There were aliens out there who, "as likely as not," would kill him and Gage if they crossed paths.

Gage jerked a thumb toward the ship. "You think you're safer here, hanging around a ship that just landed on an alien-occupied planet? Or maybe you'd rather join one of the larger exploration teams, which are bound to draw attention if they encounter Nunki."

Aiden eyed the survivor they'd been listening to. She was still alive after all this time. Maybe appearing to be one of them was a better strategy than appearing to be part of the colony that knocked an asteroid into Earth.

A gust of wind kicked up, cutting right through Aiden as he nodded. "Okay. We find your family, then we find mine." It was hard to form the words; his mouth was stiff from the cold.

"I'll get some rifles and supplies. You tell the captain."

Aiden barked a laugh. "Oh, I tell the captain."

Although she'd never admit it, Captain Mahajan had treated Aiden with an undercurrent of disdain since the day Aiden had fled the stage in the middle of that colony-wide intervention. Aiden flinched with embarrassment recalling it.

Mahajan was still talking with the dark haired woman as a small crowd listened. The woman was wolfing trail mix from a plastic container while she talked.

"They do even worse in the cold than we do. Someone on the short wave said it's because everything they do is built around the Sun, around solar. They don't *build* nothing—they grow it. Their buildings and such need Sun, and food and water, so it all died."

The words brought joy to Aiden's heart. They'd hurt the fuckers. They'd really hurt the monsters responsible for wiping out seven billion souls. Good.

As he marinated in the moment, Aiden realized he still didn't know what the Nunki *looked* like. Maybe the captain had already asked? The transmissions they'd

received before they stopped altogether said some were fifteen feet tall, others four, that some walked on two legs, some on ten. Also, you could see inside them, and sometimes they glowed in the dark. None of that was terribly helpful in drawing a mental picture. Aiden wanted to be prepared for the sight of them, if he did in fact ever see one. Any concrete picture would be better than the nightmare images his imagination conjured in this dark, dead place.

"What sort of weapons do they have?" Captain Mahajan asked.

The woman stuffed a handful of nuts and raisins into her mouth with trembling fingers. "Most don't have any. Those that do got rifles, mostly."

Exclamations of surprise rang out from the crowd.

"Rifles?" the captain asked.

The woman nodded. "They didn't bring weapons; they brought diseases. Flesh-eating bacteria. Spores that suffocate you. Shooting, they learned from watching us. They're not very good at it."

Aiden turned away. There was no way he could interrupt the captain to tell her he and Gage were leaving, and while he needed to know everything he could about the Nunki if he was going to stay alive, hearing how everyone on Earth had died was making him queasy. It conjured images of Eva and Calvin dying horribly.

Nunki technology was *all* biologically based. They'd known some of it was, even most of it, but it had seemed inconceivable that they had no hard technology whatsoever. What an incredible stroke of luck. The asteroid had completely neutralized them.

He spotted Shakia, supervising people unloading supplies. He could tell Shakia where he and Gage were going, and she could tell the captain later. That way Aiden could avoid the inevitable confrontation with the captain.

Aiden called Shakia's name.

She headed over. "Welcome home." She was wearing knee-high black boots, a big black and white checkered scarf that reminded Aiden of the floor of a diner. How she'd fit her wardrobe into the draconian weight restrictions of the Mars mission baffled him.

Aiden jerked his thumb over his shoulder. "When you have a chance, can you tell the captain Gage and I went to look for his . . ." He choked on the last word, realizing what a dumb thing he'd just done, given Shakia's relationship with Gage.

"I'm coming with you." Shakia turned. "Let me get some things."

"You want to come *with* us?" Aiden couldn't keep the astonishment out of his tone.

Shakia turned back. "I want to take a look around anyway, why not go with you and Gage?"

Aiden shrugged. "Okay." He was glad to have her company. Plus she'd fired a rifle before. Aiden wished he could say the same.

Not knowing what else to do, Aiden headed back toward one of the crowds interrogating the survivors. The snow under the thin layer of soot was mostly frozen solid, so they were able to walk on top of it instead of slogging through it, but despite two pairs of socks and heavy lined boots, his toes were already freezing. What were they going to feel like after a few hours of hiking through the city? He wondered if he should go back and change into new socks, maybe put on a third pair.

As he turned back, he spotted Gage heading toward him.

"Give me a hand, will you?" He was carrying two huge packs.

"What the hell did you put in there?" Aiden grabbed a pack from Gage, his biceps flexing under the weight.

"Food, cookware, first aid kit. I figure we can pilfer bedding—"

"*Bedding?*" A surge of adrenaline shot through Aiden. "No. Absolutely not. I can't camp out. I *hate* camping out." He'd learned from an early age that he absolutely

could not sleep outdoors. The outdoors just felt *foreign* at night. There were no familiar touchstones to draw comfort from.

Gage spread his open palms. "We're not going to make much progress if we scurry back to the ship each night. And we won't be camping out. There are plenty of empty houses."

Aiden didn't do well sleeping in unfamiliar environments of any sort. He didn't do well *sleeping*, period, but away from his own bed it became all but impossible.

"Ready?" Shakia came up behind them, a pack on her shoulders.

Aiden panicked. He didn't want to sleep in some poor dead family's home, but he also didn't want to admit to Shakia that he was afraid. It shouldn't have mattered what Shakia thought of him, but it did.

Aiden took a big, huffing breath. "I need to get some things first."

"What?" Gage patted his pack. "It's all in here."

Except for Aiden's medications, his alcohol, the ancient iPhone he used to listen to big band music to calm him while he tried to sleep. His special tube-shaped pillow, extra underwear. "I just need to grab a few things." Aiden took off before they could insist on specifics.

## Chapter 8

Aiden's toes ached with cold before they'd gone a mile. Cold mimicked the physical symptoms of anxiety—clenched muscles, trembling, shortness of breath—and while consciously he knew it was the cold piling on those symptoms, the darker corners of his mind were unimpressed by logic. So cold magnified his anxiety.

A woman, hunched against the frigid wind, one hand pressed to her chest, passed on the other side of the street. She was carrying a makeshift torch—a two-by-four burning at one end. They'd seen a few people with flashlights, but mostly it was torches. The woman didn't give Aiden, Gage, and Shakia a second look. There was nothing to mark them as Mars mission personnel. If the light was better, or she came closer, she might notice how clean they were, how well fed.

A high, yipping bark startled Aiden. He turned, watched the woman hurry around a corner. "She must have a little dog in her coat."

"Well, at least we know dogs aren't extinct." Gage sounded almost flip.

Aiden studied his profile as they walked. "Don't you feel at all guilty about this?"

Gage glanced at him, his face half-buried by scarves and the hood of his coat. "Why should I feel guilty? We made the right decision."

"You should feel guilty because people died from that decision. We turned Earth into a *moon*. Even if you think we did the right thing, it doesn't absolve you. You're still responsible. In fact, you're more responsible for this than I am."

Gage shrugged. "I'm not asking to be absolved. I'll gladly accept my share of the responsibility. I'm not going to wallow in guilt, though."

Aiden looked at Shakia, waiting for her to weigh in, but she kept her eyes on the ash-covered ground.

Maybe they'd done the right thing in deflecting that asteroid—it was a complex ethical question with no simple answer—but even if they had, the cost had been staggering. It had been knee-buckling. Aiden felt like he was carrying the weight of every life that had blinked out because of their action, and that was how it should be. Gage, on the other hand, didn't look to be carrying any weight except the pack on his back.

As they turned left on West Harrison Street, past the financial district, Shakia's walkie-talkie beeped. She unhooked the silver slab from her belt. "Go ahead."

It was the captain. "Where are you?"

"Taking a walk with Gage and Aiden. Gage wants to find his family."

"I need you back here."

Shakia looked toward the sky. In the darkness Aiden couldn't see her eyes roll, but he didn't have to. "Whatever it is, get Mark to do it."

"It's not one thing. More survivors are showing up. They all want food, and if we feed everyone we won't have enough for the return trip."

Gage put a hand on Shakia's shoulder, whispered, "Let me talk to her." She handed him the walkie-talkie.

"Look, Sangita, someone's got to do some deep reconnaissance. It might as well be us. We need at least one person with us who can shoot straight."

The captain argued, but really, her authority was limited. Since the quiet, bloodless coup that ousted Manes as leader of the colony, orders had become more advisory than compulsory. In the end Mahajan relented rather than suffer the embarrassment of having her order defied.

Once they crossed over to the Eisenhower Expressway, Gage picked up the pace. Aiden and Shakia struggled to keep up.

"Tell me you can't hear them," Shakia said.

Shivering uncontrollably, Aiden lifted his face, strained to pick up some sound beyond the crunch of their feet on the snow. "What?"

Shakia sighed. "You're so adept at tuning in to the thoughts of the living. You could hear them, if you listened properly."

"Ah, the dead." Aiden was fascinated by people who could so effortlessly straddle the worlds of science and mysticism. He could never hold both views simultaneously. Somehow, though, he had no problem simultaneously admiring Shakia's tangled belief system and thinking her belief in the mystical was nonsense.

"The air is thick with them." She pressed her palm against the center of her chest. "You can hear them here."

"I'm afraid I'm never going to hear them. You'll have to tell me what they're saying." Although honestly, he didn't want to know what they were saying.

Aiden wondered what Gage must be feeling, minutes from knowing whether his family was alive or dead. Based on the number of people they'd seen, the fireplaces glowing through windows, Aiden guessed 80 or 90 percent of the population was dead. The odds were not in Gage's favor. Or Aiden's, for that matter.

He glanced at Shakia, wondered what *she* was feeling. Deep down, did she hope Gage's wife was dead? Did she love Gage, or was he just convenient companionship?

Aiden would have walked right past Gage's house, with the trees naked poles, all the ground a uniform gray-black.

Through the living room window, a soft red glow danced among the shadows.

Gage took off running, his feet breaking through the frozen crust, sinking to his shins with each step. "Hiromi? *Lilly?*"

Aiden might have seen disappointment cross Shakia's face, but it might have been the shadows. She trotted after Gage, moving more slowly. Aiden trailed behind her.

Angry shouts erupted inside. "Shit." Aiden drew his pistol, rushed through the open front door on Shakia's heels.

"Chill. Right now. Chill," a scraggly-looking kid with a patchy brown beard shouted at Gage, who couldn't decide where to point his handgun, because six or seven people were pointing weapons at him. A few of those weapons now shifted to point at Aiden. They had pistols, a nail gun. One held what looked like a flamethrower.

"What are you doing in my house?" Gage shouted.

"I said, *chill*," the scraggly kid said. "What the hell is wrong with you? It was *vacant*. It had a *fireplace*. So we crashed."

"Gage, put it away." Shakia put a hand on Gage's extended arm. Gage lowered his gun. The band of what Aiden could now see were all teenagers lowered their weapons as well.

"Well. That was exciting," a girl, maybe fifteen, said.

Gage ignored the comment. "You said the house was vacant. Did you find a note, maybe pinned to the front door? On the kitchen table?"

The scraggly kid shook his head. "No note."

Holstering his handgun, Aiden stepped forward, offered the kid his hand. "Aiden."

"Zeus."

They were beyond filthy, like a band of chimney sweeps. A tall, skinny, pimply kid introduced himself as Monty. He was wearing a knitted cap that had two long tassels, like tails dangling at his ears.

The girl who'd made the wiseass remark, her bleached-blond hair cut short and uneven, was Beltane. Even before she offered her hand and he saw cuts along her forearm, Aiden was instinctively thinking borderline personality disorder.

As Aiden studied her, Beltane turned to Gage. "So, if your wife and kid were here, where've you been, Dad?"

"Mars."

A few of the kids chuckled.

"Mars," Gage repeated. He disappeared into another room, evidently to search for a note from Hiromi.

Aiden pulled his laminated colony ID card from his front pocket, showed it to each of the kids in turn.

"Holy shit," Beltane said as he showed her the card. "Mind. Blown. You're seriously from the colony?"

"I can't believe I'm here, either," Aiden said.

Gage reappeared. "I'm going to see if any of the neighbors are still around. They might know where Hiromi is."

That was an optimistic way to put it.

"Are you here to take us back to Mars?" Zeus asked.

"At this point we're trying to figure out what's the best course of action," Shakia said. It would be impossible to transport thousands of refugees to Mars, and there wasn't enough space in the colony anyway. Their plan was to cherry-pick people with valuable skills (plus Gage and Aiden's relatives, if they were still alive) and bring back crucial technology and supplies.

Shakia went to the fire, pulled off her gloves and held them toward the flames. "How are you surviving?"

"We're not," Zeus said. "There used to be sixteen of us." Aiden counted seven.

"I'm sorry," Shakia said.

Zeus nodded.

Aiden joined Shakia by the fire. Heat had never felt so good; he wanted to climb right into the flames.

"We keep moving to find food," a lanky Asian boy who'd introduced himself as Good Boy said. "You have to do the scavenger thing, find new neighborhoods outside the wall, try to avoid the Nunkis."

"What's this wall?" This was the third time Aiden had heard it mentioned.

"It's not a wall any more, just a perimeter," Good Boy said.

"It used to run all the way around the city, forty feet high. It died after the asteroid hit," Zeus said.

"How did you get food, if there was a wall around you?" Shakia asked.

"The Nunkis sent it in. Every morning."

"They were *feeding* you?" Shakia said. Aiden recalled hearing that on the transmission they'd received, so he wasn't surprised.

Zeus nodded. "The best anyone could figure, we were pets. They'd come and watch us. Otherwise they left us alone." He squinted. "You really are from Mars?"

Before Aiden could answer, the front door banged open and Gage appeared, looking shaken. "Aiden, Shakia, can I speak to you?"

Aiden followed him into the kitchen, where the firelight provided only a deep red gloom.

"They're alive. They left with some man named Warren about two months ago." He made the name *Warren* sound like a particularly severe venereal disease.

"Do you know where they went?" Shakia asked.

Gage shook his head. "Outside the city. Maybe north." As Aiden digested this, he added, "I have to go after them."

For a moment, Aiden thought he'd misunderstood. "Outside the city? That's where the Nunki are. Plus, the captain isn't going to wait for us. Three days, tops, then we head back."

"I know. I'm not asking either of you to come with me."

It was a terrible idea. How was he going to find three people in the dark when all he knew was they'd headed *north*? Maybe more to the point, how would he stay alive out there, alone among the Nunki?

He wouldn't. He'd be dead in a matter of days.

"You said you'd help me find my sister after we went to your house—"

Gage glared at him. "I said I'd help you after I found my family. I haven't found them yet."

"Jesus, Gage, they've been gone for two months." Aiden paused, summoned his calm, soothing therapist voice. "Take a breath. Think it through before you go charging off."

"It's my *family*. I don't need to think it through."

Gage seemed almost panicked. Some of that emotion was probably about Hiromi going off with some man. That was understandable, if somewhat ironic.

"If you go out there unprepared and get yourself killed, that's not going to help them." Shakia sounded like someone who had no stake in the outcome.

"Let's do a little more reconnaissance, at least. Get the lay of the land," Aiden said. "You need to know what's out there before you go."

Gage sighed through his nose. "Fine. I'll leave tomorrow morning." He looked out the window, into the blackness. "Do you even call it morning any more?"

In the living room, the kids watched as Aiden, Gage, and Shakia gathered their packs.

"We're going to move on," Gage said. "Aiden and I lived in Chicago before the mission, and there are people we want to find."

Zeus hopped out of a stuffed chair. "We're coming."

Gage did a double take. "What? No, you can't come with us."

"We can go wherever the hell we want," Beltane said.

Traveling with survivors seemed like a great idea to Aiden. They could learn how to avoid making stupid blunders that might get them killed.

"Why do you want to come with us?" Shakia asked.

"You're from *Mars*," Zeus said. "You're the closest thing to a rescue party we're going to see. Of course we want to stick close."

*Red Two* was the cavalry. What a depressing thought.

"So where are we headed?" Beltane asked.

Gage looked at Aiden, eyebrows raised. "Where does your sister live again?"

Everyone turned to look at Aiden. "West Madison."



Zeus nodded. "That's inside the perimeter, at least. If it was outside, there'd be no chance."

Aiden closed his eyes. A little good luck. Finally.

## Chapter 9

**M**onty, the skinny kid, was walking beside Aiden. Despite being a clinical psychologist whose job purportedly included knowing how to put people at ease, Aiden had never been adept at initiating conversations with strangers. At the same time, it felt awkward to walk beside this kid in silence.

"Is your name really Monty?" he ventured.

The kid looked up. "We all picked new ones. Except Beltane, who had a good one to begin with."

"Why Monty?"

Monty shrugged. "I love *The Holy Grail*."

Aiden couldn't argue with that. *Monty Python and the Holy Grail* had kept him company through many sleepless nights.

Up ahead, Zeus opened the door of a huge SUV and slipped into the driver's seat. He started it, rolled down the window as others climbed into the back. "It's going to be a tight fit."

Aiden had assumed they would walk. He was thrilled at the prospect of avoiding a three or four mile slog through the cold dark. On the other hand, the van was horribly crowded.

He ducked his head and climbed in. "Where do you get gas for this?"

Beltane got out of her seat, patted it. "Here you go."

"Oh, I don't want to take your seat." He squatted between the two middle seats, Shakia's knees pressing his lower back.

"You're not taking it. We're gonna share." She took Aiden's wrist, pulled him into the seat, then sat in his lap. "You can still find gas if you go far enough away from the city. Sucks getting it out of the storage tanks, though."

A few of her companions chuckled at this.

"Why does it suck?" Aiden cleared his throat. His voice was an octave too high. He was getting an erection, could feel his face burning.

"You have to suck it out, a hoseful at a time." Beltane wriggled in his lap, her butt rubbing against his crotch. "You like that?"

One of the classic symptoms of borderline personality disorder was sexual promiscuity, so Beltane's behavior wasn't surprising, but this wasn't his office and she wasn't his client, so he was at a loss for how to respond. His heart was racing with embarrassment, yet his erection hung on doggedly as they drove. How many times had he *wanted* to maintain an erection, only to have anxiety deflate it?

His bowels were roiling, a gastro-intestinal storm brewing. It was just a few miles; he only had to hold on for, what, ten minutes? Zeus was flying down the pitch-black road.

"Wait. Why don't you have the headlights on?" Aiden tried not to sound breathless. They were driving by the light of a flashlight Good Boy was pointing through the windshield.

"Headlights are a great way to attract Nunki. Make a note of that," Zeus said.

They passed signs for a strip mall: Office Depot, Wendy's, Verizon. They were on Desplaines Avenue, Aiden realized. Penelope had lived right around the corner.

A pang of wistful sadness penetrated the metallic dread of his anxiety. He ran with it, summoning images of Penelope. If he could get lost in his head until the ride was over, he might stave off the panic attack.

She'd been exactly the kind of woman he'd always dreamed of meeting. Funky and free-spirited, but not so funky and free-spirited that she was unemployed, heavily into illegal substances, or suffering from borderline personality disorder. She'd worn bright outfits put together from thrift store finds, but still shaved her legs. She was an outlaw who behaved, just what Aiden aspired to be if he ever got his anxiety under control. Even her name was perfect. Penelope. Whimsical and musical, yet if you wanted to bring it down to Earth, temporarily remove some of the whimsy, just shorten it to Penny. They'd only been seeing each other for a few months, but he'd fallen for her hard.

Aiden had thought things were going well, then the day after he'd had an epic panic attack in her kitchen, he'd gotten the text. He still remembered her words verbatim.

I HAVE TO SAY GOODBYE. I'M HAVING ISSUES I NEED TO SORT OUT. I'M SO SORRY. PLEASE DON'T CALL.

Issues she needed to sort out. It was an ironic way to tell a clinical psychologist that he was way too fucked up for you.

Was she in her apartment at this very moment? It was hard to imagine Penelope alive in this black world. Maybe he would have time to look for her, once he found Eva and Calvin. Would that be cruel, though? He only had permission to bring back his two blood relatives. He doubted there was room for negotiation on that front.

"There's what's left of the fence," Good Boy called from the front. He diverted the flashlight to the right, at a towering, gargantuan white pillar that disappeared up into the darkness. The base was almost as wide around as the Wendy's restaurant beside it.

"What is that?" Gage asked from the back.

"A bone," Monty said. "That's all that's left of the wall. A ring of bones around the city."

"Take the next left," Good Boy said to Zeus. He had an old fold-out map in his lap. Zeus barely slowed.

"The transmission we received mentioned the Nunki laying down rules," Aiden said. "You're able to communicate with them?"

Beltane formed an L with her arms. "Sign language. Everyone was required to learn it."

They pulled to a stop. "Here we are," Zeus said.

Aiden fumbled with the door handle, feeling as if every second in reaching Eva was suddenly crucial.

"Don't get your hopes up," Zeus called as Aiden climbed out. "If they're alive, chances are they moved."

He drew a flashlight from his pack. The front door to the complex was unlocked, the expansive lobby dark. He found the stairwell leading up.

"Aiden, wait for me," Gage called as the door clicked shut behind Aiden. He started climbing. He needed to do this himself, alone.

Winded, he reached the seventh floor and jogged down the hall to Eva's door.

"Eva." Aiden pounded on the door, then waited.

Nothing.

He pounded once more, then tried the door. It was unlocked.

"Eva? Calvin?" There were dirty dishes in the sink, empty food wrappers and boxes piled on the kitchen table.

"Calvin?" It was difficult to shout, because he was breathless.

Aiden shined the flashlight into Calvin's bedroom, glimpsed two faces in the bed, above a hill of blankets. He cried out, rushed toward them, hoping against hope that they were only sleeping.

They weren't sleeping.

Of course they weren't; his pounding on the door and shouting their names would have waked them if they'd been sleeping. Their faces were ghostly white in the flashlight's harsh light.

Aiden pulled off his glove, touched Calvin's cold forehead, still hoping he would open his eyes, irrational as that hope was. They'd died after the cold set in. Otherwise there would be signs of decomposition.

He spotted a half-empty glass of bright purple liquid on the nightstand. A white film caked the frozen surface.

"Oh, no," Aiden picked up the glass, studied the white film before pointing the flashlight into the adjoining bathroom. A prescription bottle sat open on the counter, which was smeared with white powder. "I was coming for you. You just needed to hold on a little longer."

They'd made it through the plagues, the invasion. The asteroid had killed them. Aiden's stupid attempt at humor had killed them.

Aiden kissed Calvin's cheek, then went around and kissed his sister's cheek.

"I'm sorry," he whispered.

Gage and Shakia were waiting in the lobby.

"The captain called. We have to get back to Grant Park right away," Shakia said. "People just keep coming. It's getting tense."

Aiden nodded.

When they climbed back into the van Beltane took up her spot on Aiden's lap, and Zeus pulled out and hung a U-turn.

"Hurry," Shakia said.

Beltane patted his knee. "Not there?"

It took Aiden a moment to realize she was asking about Eva and Calvin.

"They were there."

"Shit. Sorry."

All Aiden could manage was a nod, which was useless because it was dark, and Beltane was facing the other way.

"Good Boy, how about some music?" Beltane said. A moment later the silence was broken by a shrieking guitar. Aiden didn't recognize the song, although the odds that these kids would possess any music Aiden might recognize was minuscule.

He was glad to be heading back to *Red Two*, eager to be back among familiar faces, away from these Lord of the Flies cast members. He knew that characterization was wildly unfair, but he was tired, and stressed. He could still feel Calvin's cold forehead on his fingertips.

"Look out," Good Boy shouted.

The brakes screeched.

The van slammed into something. Aiden was hurled into the seat back in front of him.

When Aiden came back to the world, he was on the floor with his cheek pressed to the carpet. Someone was on top of him. With each ragged in-breath it felt as if knives were being shoved into his ribcage.

"Good Boy? Where's Good Boy?" Beltane stepped on Aiden's leg, climbed into the front seat. Whoever was on top of him struggled to get up, slipped, landed on him again. Fresh, blinding pain lanced his ribcage.

Warm fluid was dribbling onto the back of his head. Blood.

"What did we hit?" someone asked.

The door rolled open; a blast of icy air and snow flurries hit Aiden. The pressure on his back eased; Shakia rolled off of him, to one side. She groaned, semi-conscious.

Aiden got his knees under him.

Beltane was in the front passenger seat staring through the wrecked, mostly missing windshield. Good Boy had gone through it with the flashlight, which was casting a tight beam of light across the road.

A deep, mournful, rolling bass filled the air. Aiden felt it as a vibration deep in his belly.

Suddenly everyone was scrambling.

"Nunki," Zeus said. "Jesus, we hit a bus full of Nunki."

A bus of Nunki? Aiden grabbed Shakia's shoulders and dragged her out of the van. He fell backward, dropped to the road, gritted his teeth to keep from crying out. He lifted Shakia as people rushed past.

Figures loomed in the periphery, outside the school bus they'd collided with. Aiden did not look at them.

A body landed a dozen feet away and lay motionless. Aiden couldn't tell who it was. He stumbled blindly into the darkness, carrying Shakia, his ribs in agony as that terrible booming went on, a tuba from hell. The Nunki were making the sound; he had no doubt. He stumbled across a dozen yards of snow, then reached a raised surface. Probably a sidewalk.

Behind him, someone screamed. It went on in sharp staccato bursts—the sound of someone in agony—as Aiden dropped off a curb and fell, landing on Shakia, scraping his knees on the ice and sending a fresh stab into his ribs. The darkness was just about complete, the only light coming from the flashlight Good Boy had taken through the windshield, now a hundred feet behind them.

He bumped into a smooth concrete wall. A building. Probably a store. Turning, he ran an elbow along the wall to guide him until he reached an open space. His elbow brushed the sharp edge of a broken-out store window. He ducked, stepped through, walked forward until Shakia bumped the counter of one of the registers. He ducked into the cashier's station, laid Shakia on the floor and collapsed beside her.

The screaming had stopped. Only the deep metallic boom of the Nunki broke the silence.

Orange light flashed outside, illuminating the street. Suddenly Aiden could make out the front of the store, the parking lot, abandoned vehicles . . .

The temperature seemed to drop twenty degrees as five Nunki carrying torches stepped into view. Aiden clenched his teeth to stifle a moan.

They were so close together it was difficult to tell where one ended and another began. They were angular, barbed; some of the firelight passed right through, refracting, casting beams into the air. Some walked upright, others on all fours, or sixes. One seemed to have a dozen limbs. They wore haphazard layers of human clothes—coats, shirts, swatches of fabric draped across their narrow frames. Only their faces and limbs were similar from one to the next, with deep-set eyes and two long teeth like tusks, limbs that were mostly blade-shaped bone and rough skin.

The sight made the Nunki real to Aiden in a way they had not been before. Knowing they were all over the planet, while humans occupied this one tiny spot, filled him with such black despair that he wanted to put a gun to his head and end this sickening story right then and there. If the handgun he'd been issued hadn't been in his pack in the wrecked van, he would have done it, and fuck his responsibility to keep the human race going. The sooner they were all gone, the sooner this nightmare would end for them.

"Aiden."

He helped Shakia sit up. The blood on her forehead and ringing her mouth looked black in the dim light. She'd broken her nose, had a deep gash above one eye.

"What happened?" she asked, far too loud.

Aiden shushed her. "We hit a bus full of Nunki."

Outside, the light grew suddenly brighter. Aiden rose just high enough to see over the counter.

A Nunki holding a torch passed in front of the store. Aiden froze as it turned in their direction. The sleeve torn from a heavy winter parka covered the alien's right arm, but its shoulder and part of its chest were bare. Aiden could see blood vessels, a beating heart, three bones running horizontally under rough skin.

It moved on.

The Nunki in the street were bent over something. Aiden squinted, trying to make out what it was.

One reached down and lifted a can, examining it. It was a can of fruit. Peaches, or maybe apricots. They were opening it with a knife. Another was rifling through a backpack, no doubt from the van. It pulled out a tube-shaped cellophane package. Ritz crackers.

"We have to get out of here," Shakia said.

Aiden nodded, transfixed by the scene. They were eating Ritz crackers and fruit from a can. He even recognized the brand from the label. Del Monte. They'd been driving a school bus.

Shakia touched his shoulder. "Out the back." Her voice was shaky, slurry, like someone drifting off to sleep.

He followed her, the two of them crawling down an aisle toward the back of what looked to be a Walgreens or CVS drug store. His side screamed with each forward slide of his right knee. They pushed through a door, into the total darkness of the employees-only area.

Shakia took his clammy hand. "Do you know the way back to *Red Two*?"

"In theory." It would be difficult to navigate in pitch dark.

They felt their way along the wall to the exit, opened the fire door as quietly as possible.

The Nunki must still be having their meal; ambient light from their torches allowed Aiden to make out a dumpster, and beyond it a paved lot that tilted and rolled, because Aiden was suddenly dizzy.

He couldn't catch his breath; his heart was racing. He dropped to his knees. "I need a minute. Just let me . . ."

Shakia touched his shoulder. "Are you hurt?"

"I think I broke some ribs." If he took shallow breaths it hurt less, but right now taking shallow breaths made him feel like he was suffocating. He lay on his side in the ash-covered snow, curled his knees up and hugged them.

"I'm sorry. Just give me a minute."

Shakia put her hand on his back. "We're okay now. We're safe."

Even if they'd really been safe, even if he were back in his room on Mars, it wouldn't matter.

"A panic attack. Right?" Shakia asked. Her voice had grown clearer, less slurry.

He looked up at her. It was hard to concentrate, hard to speak. "You sound like you know them."

"My son used to get them. Acute anxiety disorder."

Aiden nodded. It went without saying that her son was dead.

"Even as a child," Shakia said. "Anxiety, all the time. It was so hard for him."

Aiden felt grateful for her words. It made him feel less foolish, less weak. "It's like crawling through broken glass, every moment of your life."

"You hide it well."

"Do I?" The attack was dissipating a bit, his chest loosening. "I think I'm okay to walk now. Thanks for talking me through it." He got unsteadily to his feet.

"Thanks for pulling me out of that van. That's how I got out, isn't it? You carried me?"

"Yeah."

Aiden snapped a branch off a dead shrub on the edge of the parking lot, and when it grew too dark to see he tapped it in front of them the way people who were blind used canes. He doubled back onto Desplaines a half mile beyond the Nunki picnic.

"Do you have a headache?" he asked.

"Big time."

"Dizziness? Nausea?"

"A little." Shakia said. "You're thinking I have a concussion."

"I can evaluate you when we get back."

They leaned on each other like drunken buddies stumbling home from a bar.

The silence of the world was startling. Between the darkness, the silence, the limited palette of scents to pick up on the freezing wind, it was as if this world had closed down Aiden's senses.

Would someone else have come up with the idea to divert TV-188 if he hadn't? It would be nice to believe that. Maybe he'd just thought of it first.

"Did you see that?" Shakia asked.

Aiden scanned the wall of blackness surrounding them. "More of the dead?"

Shakia swatted his forearm. "Don't be smart. A light. Just a flash, straight ahead."

Aiden didn't see anything, but he picked up his pace.

"How far ahead?"

"Hard to say. Maybe a quarter of a mile?"

Aiden squinted into the darkness, but there was nothing. It was possible the flash Shakia had seen was a symptom of her head injury.

"Why don't you talk a little louder," a voice to their left said. "I'm not sure the Nunki can hear you."

White light flashed, revealing Beltane, Gage, and Monty. An instant later Beltane flicked off the flashlight she was pointing at the ground, and they were in darkness again.

Aiden felt a hand on him, then Gage was hugging him. "I thought you were dead."

"So did I." He raised his voice. "What about your companions?"

"Good Boy and Magdalene are dead," Monty said. "We don't know about the rest of them."

"They were driving a school bus," Shakia said. "Why were they driving a school bus?"

"Because they had somewhere to go, I would imagine," Beltane shot back.

"They had mind-blowing technology—stuff from out of your nightmares," Monty said. "There used to be these tubes around, like big veins. The Nunki squeezed right into them. There were no openings—they just pushed through like they were stepping inside a soap bubble, and then they would shoot off."

Veins as transportation. Aiden was so grateful he hadn't been here to see it.

"The wall was so bizarre," Monty went on. "See-through, just like the Nunki; the same barbs. Zeus thought all of their technology was based on their own DNA."

"We were surrounded by a wall of Nunki flesh and bone," Beltane said. "That sounds about right."

As they crossed the bridge on West Lake and headed downtown, fires warming people inside houses gave the darkness a softer hue, more grey than black. Aiden could make out silhouettes of buildings and light poles. The occasional figure hurried past, hunched against the bitter cold.

The ambient glow grew stronger as they approached Grant Park. Someone ran past carrying a cardboard box.

"What's that smell?" Beltane asked as they headed down Lakeshore Drive toward Grant Park.

"Smoke," Aiden said. The smoke had an undertone of something else. Something bitter, acrid, like burned rubber.

In the direction of the park, the air glowed dark red. A thick plume of black smoke rose.

"Oh, no." Aiden had forgotten about the captain's call. Despite the pain, he jogged, praying the smell was not coming from *Red Two*.

Hundreds of people were milling around the park. Smoke poured from the open main hatch of *Red Two*. Around it, the red carbon fiber hull was singed black.

A man and woman standing with two children were watching nearby.

"What happened?" Aiden asked.

Scowling, the man gestured toward *Red Two*. "A bunch of idiots stormed the ship to get the food in there. Something inside must have caught fire from their torches." He stared at *Red Two*, his eyes flat. "Half an hour ago flames were all up the sides of it."

Bodies lay scattered around the main hatch, people *Red Two* security must have shot trying to protect the ship, in the process bringing them all a few baby steps closer to extinction. Personnel were hurrying in and out, hauling salvage from *Red Two*.

Aiden limped toward the ship, following Gage and Shakia, wanting and not wanting to know the status of the ship.

Captain Mahajan was standing amid salvaged equipment. When she saw them her shoulders slumped, and she started to turn away. Then Shakia's bloodied face registered and she turned back.

"We were on our way," Shakia said. "We were in an accident."

"What's the ship's status?" Gage asked.

Captain Mahajan looked up at him. "The status is, it's fucked."

## Chapter 10

Aiden nudged the charred skeleton of his suitcase with his foot. There was no need to touch it; everything that had been inside was ash. Everything that had been in his room was ash, including his supply of Xanax and Paxil. The walls were singed charcoal gray, the smoke stench overwhelming, even through the towel he was holding over his nose and mouth.

There were situations that reliably threw Aiden into a state of icy panic. Public speaking. First dates. Other situations were less predictable. Traveling. Performance evaluations. Aiden would have bet his life that becoming stranded in a perpetually dark city surrounded by hostile aliens with no pharmaceuticals belonged in the former category, but there he stood, his overriding emotion despair rather than terror. Maybe he was in shock, and the real onslaught of anxiety would come later.

Or maybe his adrenal glands had finally given up.

He headed back outside.

Half a dozen bonfires burned around the perimeter of *Red Two*, keeping the darkness at bay, providing the illusion that this was an organized operation, distinct from the anarchy and starvation surrounding it. Aiden knew better. They had no food, little energy. Soon they would be indistinguishable from the desperate souls looking to them for salvation.

"Aiden." Mark Adlerberg was coming toward him. "Someone was looking for you." Mark looked around, pointed out beyond the bonfires. "There she is."

She was a frail-looking woman in jeans, a heavy blanket draped over her shoulders. Short hair, sharp cheekbones. It wasn't until she spotted Aiden and smiled that he recognized her.

"Penelope?"

She rushed toward him. "Aiden? Oh, my God, I can't believe it." Penelope hugged him until his broken ribs shrieked. She took a step back and looked at him. "In a million years, I never would have guessed I'd see you again."

She'd lost thirty pounds and an incisor, but her eyes were still bright, expressive, her smile a big, enthusiastic rectangle.

"Wow. I was beginning to think everyone I knew was dead."

Penelope raised her arms like she was showing off a new dress. "Here I am. Can't say it's been a blast. Want to know what *rat* tastes like?"

"Well, I'll be reopening my practice in a couple of days, if you want to make an appointment."

She folded her arms, looked off into the dark. "No, I'll be all right."

He put a hand on her shoulder. "Penny, I'm *joking*."

"No, you should go back to work. People can use your kind of help."

*I can't help these people*, he wanted to say. The thought of sitting in an office across from one of these survivors trying to process everything that had happened made him queasy. No one was going to ask him to do that, though. They were too focused on finding enough to eat, gathering fuel for fires, to worry about their broken minds. No, Aiden was sure he was off the hook on that front. His days would be filled with healing people's bodies, using what he could recall from his time in med school.

Over Penelope's shoulder, Aiden spotted Shakia, head down, heading for him. The gash in her forehead had been stitched, an ice pack lashed over her broken nose.

She stepped close, kept her voice low, although there were far fewer people in the park than there'd been a few hours earlier. "A reconnaissance team spotted Nunki in vehicles heading this way."

Penelope gasped. "They never come into the city."

"That's what we keep hearing," Shakia said. "We're setting up a defense, in case—"

The squeal of brakes stopped her cold. On South Michigan a school bus came to a stop. Its doors folded open.

A Nunki stepped out.

Aiden, Penelope, and Shakia ran for *Red Two*.

Two more buses followed, one a city bus. Aiden wondered if the school bus they'd collided with had been heading for *Red Two* as well.

The Nunki fanned out, disappearing into the darkness. Aiden couldn't see them, but he could hear them. Aiden and the rest of them were pinned, their backs to the frozen lake.

"What do we do? What do we do?" someone was shouting.

"Set up a perimeter," Captain Mahajan shouted. "Pile equipment every thirty feet for cover. If you don't have a firearm, get one."

They met Gage, with Monty and Beltane, while running to get weapons. The six of them got to work piling electronics components until they had built a low wall.

"They're so hard to kill," Monty said. "They have, like, six hearts, no vital organs except their heads. If you take off one of their limbs the bleeding just *stops* after a couple of seconds."

"I've never shot a gun." Penelope stared down at the rifle in her hands.

"I haven't either," Aiden said. "Just do your best."

He was about to die. This moment, this was the moment of his death. The relentless flurry of his thoughts and worries would stop spinning, and everything would go black. He felt strangely ambivalent about it.

"Someone should try to talk to them," Beltane said. She stayed behind the barricade. Talking to them would require standing clear, an easy target.



The baritone bass rumble grew louder, a war cry, an obituary.

Aiden guessed this was about revenge. The Nunki had to know the people who'd arrived on *Red Two* were responsible for the asteroid. Why else would they suddenly gather to attack the ship after leaving Chicago alone for so long?

Gage was staring at him, his teeth chattering despite the bonfires.

"What?"

Gage shook his head. "Nothing."

Beside him, Beltane was hopping from foot to foot like she needed to pee.

The buses lurched forward, swung around and rolled across the frozen ground toward *Red Two*, spreading out as they approached. Aiden felt a dread that superseded fear, drilling into his spine like black poison, freezing him solid.

"They're using the buses for cover," someone shouted. Aiden could hear footfalls behind the buses.

"Shoot the tires," Gage shouted.

Aiden closed one eye and opened fire as gunfire filled the air, the rattle of automatic weapons accompanied by the crack of handguns. Windshields shattered as some shot at the drivers, although Aiden didn't see drivers.

The buses kept coming. Unless someone hit the tires and that actually stopped the buses, the Nunki would ram right through their pathetic cover.

Suddenly someone was running toward the buses. Beltane—it was Beltane in her jeans and filthy ski jacket. Aiden hadn't seen her go, but she was in the open, her arms waving like a signaler directing a jet to its gate.

"Stop shooting," Aiden screamed.

Behind him, Mahajan was shouting, "Cease fire."

Beltane ran right at the closest bus, waving her arms in the same pattern over and over.

It looked as if the bus was going to run right over her; then it slowed, rolled to a stop. Beltane went on signing. The pattern shifted to a new message.

A lone Nunki appeared from behind the bus—a big one with six limbs, holding what looked like a human-made RPG. The Nunki waved its free limbs.

Monty muttered under his breath. "Ship. Ice."

"What?" Aiden looked at Monty. "What's it saying?"

Monty shook his head violently, signaling Aiden to shut up as he went on mumbling. "Leave. Ice." Monty inhaled sharply, shouted, "They want the ship. All they want is the ship." He stepped into the open. "If we walk away, out onto the ice and away, they say they won't kill us."

The ship? The ship was scrap.

How would the Nunki know that, though? They must have seen it land, and the smoke had stopped billowing from it three or four hours ago. They probably didn't know about the fire.

Aiden chuckled to himself. They wanted off this frozen rock as badly as he. Though even operational, *Red Two* wouldn't get them out of the neighborhood. Maybe they thought they could improve it.

"Tell them we agree," Mahajan called to Beltane. "Tell them we'll leave."

Beltane waved her arms. The Nunki signaled back.

"They want two people to stay behind to show them how to operate it," Monty called to the captain.

"Shit," Gage hissed.

The captain glanced around. "Welch. Will you stay behind with me?"

After a long pause, Welch called, "No. I'm sorry, no." Allen Welch was their chief engineer, so he made sense. Aiden couldn't blame him for balking, though. Who wanted to tell these Nunki they'd taken possession of junk?

Beltane looked back at the captain, hands on her hips. "Get a clue, lady. You need someone who knows how to talk to them." She signed something to the Nunki, took a few steps back. "I'll stay."

People began breaking ranks, jogging toward the frozen lake. Shakia stepped out from behind their makeshift wall. "I'll be the second. You go on, Captain."

Startled, Aiden said, "You're not an engineer."

"What's to know?" Shakia looked the ship up and down. "It doesn't work." She turned to the captain. "Get everyone out of here before they change their minds."

Mahajan nodded. "Thank you, Shakia." She raised her voice. "Let's go." Half the crew were already a hundred yards out on the lake and heading along the shoreline.

Aiden watched people hurry past. He desperately wanted to join them, but his feet wouldn't budge.

What would he say to Shakia as he left? *Bye. Good luck. I'm out of here?*

No one would be surprised. At one time or another they'd all seen him curled in the fetal position, shaking. Certainly Penelope wouldn't be surprised.

He turned to Penelope, who was looking at him expectantly, and put a hand on her shoulder. "You go on. I'm going to stay." His own words shocked him.

Maybe unconsciously he really did want to die, to escape this hellish place. Or maybe he thought he deserved to die, for the part he played in making it this way.

Penelope opened her mouth to say something, but Aiden nudged her. "Go on. Get out of here."

He watched her for a second, to make sure she went. Gage was standing, rifle in hand, halfway between *Red Two* and the lake, looking uncertain. Aiden waved for him to go, then turned to catch up to Shakia, who was walking through the well-trampled snow, out to where Beltane waited.

Aiden wasn't sure he could make it. His legs were rubbery, and he needed a bathroom.

Four Nunki came out from behind the buses, three more clambered out through the doors. No wonder they'd agreed to the armistice so quickly. It wasn't much of a force.

Their black, sclera-less eyes were ringed by a ridge of bone or muscle that made them appear deeply inset. One turned at just the right angle, and Aiden caught a glimpse of red flames from the bonfire, right through the center of its chest.

As they led the Nunki toward the ship, Beltane began signing.

"What are you saying?" Shakia asked.

"I'm telling them about the ship." She went on signing.

"What *exactly* are you saying?" Shakia said.

Beltane cursed. "Ship burned." Her words dripped impatience, contempt. "Hungry people. Torches. Accident. Now let me do this. They'll kill us in a second if I upset them. They'll probably kill us anyway once they realize we fucked them over."

The big Nunki replied.

"They want to see for themselves," Beltane said.

As they stepped into the dark, burned-out interior, one of the smaller Nunki began to glow. Aiden watched their faces by the Nunki's bluish light. The thick muscles around their eyes stretched into a ridge, but he had no idea what that meant. They could be sad, or furious; it could even be a means of communication.

They walked the Nunki through the bridge and the propulsion room.

The big Nunki signed again.

"Big rock sky," Beltane translated.

Somehow, Aiden's heart found a higher gear.

More signing from the Nunki.

"You pushed big rock."

"Tell it, we were trying to deflect it *away*, but weren't able to," Shakia said.

Beltane gave her a poisonous glare. "I have a couple hundred really basic words to work with." She took a deep, whooshing breath. "Should I tell them, no? Just, no?"

"Tell them yes," Aiden said.

Shakia and Beltane turned.

"They're not stupid. They made the same calculations we did and figured out it was going to miss. By the time we deflected it, it was too late for them to react, but they *know* what happened."

"I didn't do it, though," Beltane said. "*You* did. Only, I don't know how to tell them that, so they're going to kill me too."

"How do I sign 'me'?" Aiden asked. "I did it?"

Beltane's mouth fell open. "You just make an 'L' with your forearms for 'me.'"

"Hang on," Shakia said, grasping Aiden's upper arm. "You didn't do it."

Aiden turned to the Nunki and made an L. Then he shit his pants. If anyone noticed, they didn't say anything.

The Nunki stared at the L, then raised its eyes to meet Aiden's. Aiden kept his arms in position, waited for it to raise the rifle clutched in one of its seven or eight-fingered limbs.

It signed something.

"What did it say?" Aiden asked.

"Bad," Beltane said.

Aiden wiped sweat from his eyes with the back of his hand. "What's the sign for 'yes'?"

"Press your fists together."

Aiden pressed his fists together and held them there. There were a lot of other things he'd like to add—that it had been bad of the Nunki to slaughter humanity, for instance—but given the constraints of this system of communication, "yes" seemed sufficient.

The Nunki signed again.

"Give me food," Beltane translated.

"Christ, does anyone have any food?" Shakia asked, patting her pockets.

"Here," Aiden dug into a pocket of his coat, pulled out a bag.

"It's not meat, is it?" Beltane asked. "They get angry if you try to give them meat."

"Trail mix," Aiden approached the Nunki, set the bag in its open hand.

"No more," Beltane said as she signed.

The Nunki with the trail mix headed for the door. Its companions followed.

Aiden, Shakia, and Beltane stood perfectly still. The glow of the Nunki receded until they were standing in darkness. The cabin reeked from Aiden's shit, but for once Aiden was beyond embarrassment. All he felt was relief.

Nunki were pragmatic. Aiden thought he could conclude that much. They weren't interested in revenge, only survival. They'd avoided a fight when offered the opportunity. Even with their enemy right in front of them, they'd walked away because there was nothing to gain from killing them.

Of course, all of that could be completely wrong. They had, after all, killed people after the bus crash.

"Come on," Shakia took Aiden's hand. Aiden reached out and found Beltane's. Slowly, carefully, they inched their way outside, where the fires had become embers and the darkness was pushing down from above.

"Aiden." It was Penelope, her low call coming from the direction of the lake.

Aiden followed her voice, stepping gingerly because of the crap in his pants. He raised a hand when he spotted her coming out of the darkness. As she drew close she stopped, folded her arms and considered him. "Wow. Never in a million years would I have pegged you as the hero type."

Maybe she meant it purely as a compliment, but there was a backhanded insult embedded in her praise. "Penelope, I have a disorder. A disease. It cranks up the volume on my fear. Sometimes that volume is so loud I can't hear myself think, but that doesn't mean I don't have a spine."

Penelope looked surprised. "Where did that come from? Who said you had no spine?"

"You called it off between us after I had a panic attack in your apartment. You didn't have to say it."

Penelope threw back her head and shrieked with laughter, startling Aiden.

"What?" Aiden could feel his face turning red. "What part of that is funny to you?"

She covered her mouth, crippled with laughter, a tear trailing down her cheek. The others, who'd moved away to give them some privacy, looked back, unused to the sound of laughter.

"I don't understand what's so funny."

Penelope struggled to control herself. She straightened to face him. "I have *cancer*. I dumped you when I found out. We'd only known each other a few weeks, and I didn't have the energy for someone new. I wanted to be with my friends and family."

Aiden's pounding heart felt as if it suddenly stopped beating altogether. He put a hand over his mouth, feeling like such a jackass, like a self-centered, self-absorbed, narcissistic jackass.

"Are you all right now?" he asked.

Penelope folded her arms, looked at the ground. "No, Aiden, I'm not all right. I was supposed to get all of these fancy treatments, stem-cell this and chemo that, and then the Nunki came and that was that." She shrugged, lifting her shoulders nearly to her ears before letting them drop. It was one of her little mannerisms Aiden had so cherished during their brief time together.

"I'm so sorry."

"Yeah, well, odds are the Nunki will get me before the cancer does. Or the cold, or starvation." She gave him a deadpan look. "I may outlive you, given your penchant for heroics."

This time the words made him flush. His penchant for heroics. The phrase was the sweetest music coming from Penelope. That goodbye text from her really had been a tipping point, he realized. It had been the last straw, the indignation that pushed him over the edge. He'd built her up as some sort of in-absentia arbiter of his worth as a human being.

She'd been the reason he volunteered to go to Mars, hadn't she? He wanted to prove to her, and consequently himself, that he wasn't a coward. Gage had said as much.

How had he not seen it before?

"What?" Penelope was watching his face.

"I'm just now realizing that I volunteered to go to Mars to prove to you I wasn't a coward. I signed up for a mission to outer space, all because of my own insecure, neurotic interpretation of why you ended our very brief relationship. How fucked up is that?"

Penny nodded. "That's pretty fucked up. Although whatever the reason, you were lucky to get out of here. You have no idea."

Aiden considered. It was possible his anxiety had saved his life. That seemed strangely appropriate. It owed him.

Penny looked up at the dark sky. "Do you know how long it's going to be before the Sun comes out?"

"Two or three more years. Figure a thousand days." Right now that seemed an eternity, like a thousand foot high wall Aiden would have to scale if he was going to survive. When had his life not felt that way, though?

## Chapter 11

**P**enelope was buried under so many blankets it was difficult to tell for certain that she was breathing. Not that Aiden thought she was at risk of respiratory failure or cardiac arrest at this point; it just seemed if you went to check on someone you should make sure she was breathing.

Penelope rolled to face him. He pointed the little flashlight away so it wouldn't hurt her eyes.

"Hey." Her voice was blurry with sleep.

"Just checking on you."

"You're sweet. I'm okay. Just tired."

She'd been sleeping for twelve hours straight. Every day she seemed more fatigued. Aiden wasn't an oncologist, but without treatment he didn't think she had more than a few months.

"You need more water?" He lifted her cup; it was almost empty.

"My guardian angel. What an idiot I was for breaking up with you. Worst mistake of my life."

The words felt good. He'd never had someone to take care of before, unless you counted Wilhelm, the basset hound he owned in his twenties. It took the focus off his own fear, to worry about Penelope.

By the time he refilled the water cup on her night table from the pitcher, she was asleep again. He closed the door behind him as gently as he could.

In the living room the fire was roaring, rendering the room toasty-warm. Aiden sat on the floor in front of the fire while Beltane talked about being assaulted by Nunki before the invasion began. Aiden had heard the condensed version a couple of days earlier: the Nunki had grabbed her in the woods when she snuck out of a drug rehab facility to get drunk, took blood and tissue samples, then released her. No one believed her outlandish story until the invasion started.

"I found seven other people online who had the same thing happen to them," Beltane was saying. "No one believed them, either."

The Nunki had obviously used the blood and tissue samples to create the plagues they released—one viral, the other prion-based, both efficient enough to kill billions. The Nunki were centuries ahead of humans in terms of biotechnology. They could probably cure Penelope in a few minutes if they wanted.

Aiden inhaled sharply. They could, couldn't they? They could restore her to the spark plug she'd been when he first met her at Gage's party.

They wouldn't, though. They'd wiped out 99.9 percent of the human race; why would they make the slightest effort to save one person?

Gage settled on the floor next to him. It was amazing how well groomed he looked—clean-shaven, hair combed. Hell, his hair looked freshly trimmed.

"I'm leaving tomorrow, seven A.M. Shakia's coming with me. We could use your help—"

"With what? Fighting off Nunki?" Aiden pointed at Beltane. "It's *her* help you need."

"I'm going to ask her next, but right now I'm asking you." Gage shifted so he was facing Aiden more directly. "The thing is, I want to see my daughter again. I don't know if you can truly understand what it feels like, to know my little girl is out there in the dark. I have to find her."

Aiden stood. Yes, how could he possibly understand what it felt like to love someone? "Well, good luck." He went into the library that adjoined the living room. He

studied book spines on the built-in bookshelf by the orange light filtering in from the living room, pulled out a book at random, took it to a leather chair and opened it.

He kept reading the first sentence over and over, unable to make it stick. He couldn't shake the idea that the Nunki could cure Penelope, if they chose.

A hand settled on the armrest. Aiden looked up to find Shakia standing over him. "How is Penelope?"

Aiden considered how best to answer. "I'd say she's a month or two away from becoming very sick, when she'll need morphine, assuming there's any to be found."

Shakia pressed her hand to his cheek. "Are you in love with her?"

The question startled Aiden. "I don't know her well enough to know if I'm in love with her or not. I'm caring for her because I'm a doctor, and she needs my care."

Shakia gave him an impatient look. "Of course you *know*. Do you love her, or don't you?"

Aiden shook his head. "I'm not going to let myself go there. Falling in love with her would only make it harder to lose—"

Shakia smacked him in the side of the head, just above his ear.

"Ow." He pressed his hand over the spot. "That hurt."

"You're tied up in knots. Your heart is so good, but you're tied up in knots. Do you love her? Yes or no."

"Yes." The word burst out without Aiden knowing it was coming, but it felt right. He loved her. Yes. Fine. That was accurate, or at least as accurate as emotions got.

"Say it."

It was hard to get the words out. He felt oddly ashamed forming them, letting them reach his lips. Why was that? If he felt it, why did he feel ashamed to say it aloud?

Because he felt unworthy. Not just unworthy of Penelope's love, but also unworthy to love *her*, whether she loved him back or not. He felt unworthy to love someone.

Aiden closed his eyes, and forced the words out. "I love her. I love Penelope."

Shakia nodded. "Good. I know she's dying, and I know you believe there won't be anything left of her after she dies, but love her while you can. That's a gift you can give her. And yourself."

Aiden's chest hitched, his throat clenched. She was right. Of course she was right.

Shakia pointed at his nose and, more gently, said, "And let those tears come if they want to. You're all tied up in knots."

As his tears flowed, Shakia held him. He thought he could feel just a few of the knots untangling.

## Chapter 12

**A**s soon as he closed his eyes, images of Nunki loomed. He never wanted to see one again. He wanted to stay by this fire and eat canned pork and beans until the Sun came out.

If he did, though, Penny would die. She had one chance, and that involved Aiden walking up to one of those monsters and asking for help.

Why would they help him, though? Could he offer a trade? Food in exchange for healing her? He didn't know for sure they could heal her in their current post-apocalyptic state, didn't know if they were so advanced that any one of them would know what to do, or if he needed to find the Nunki equivalent of an MD. Or a vet.

Nunki loomed in the corners of his vision. He saw them tearing Beltane and Monty's friends apart after the bus accident, heard the *thud* of a body landing in the black snow.

He was exhausted from thinking about this, but the train of thought was locked in now; he couldn't stop it. There was a chance he could save Penelope, but it involved doing something he could not, in a million years, do. It was the ultimate approach-avoidance conflict, and it had him paralyzed.

Penelope appeared in her doorway, looking pale but rested.

Aiden's heart fluttered. The feeling was familiar in a nostalgic way, from a thousand unrequited teenage crushes. It had been so long since he'd allowed himself to feel such unfettered love for another human being.

He loved her. He did. She didn't have to love him back; he didn't even have to tell her, but he was allowed to feel it.

"How are you?" he asked as she sank onto the couch beside him.

"Better. Normal, almost." Her eyes grew comically wide. "Want to go dancing? I know this great club."

Aiden laughed. "I've got a better idea. You up for a road trip?"

Penelope tilted her head. "Where to?" She thought he was joking, like her.

"Straight to hell, actually."

He explained his idea, the words rushing out in panicked breaths as he realized he was giving himself no chance to back out.

## Chapter 13

Aiden kept his eyes on the tight tunnel of light cutting through the blackness. He was clutching the armrest in a death grip as the road flew by. Who in God's name had decided Beltane should take a turn driving?

Beside him, Penelope was leaning her head back on the headrest, her eyes closed. She wasn't well; the last time he'd checked she had a fever of one hundred point five. He was worried she might have developed an infection in her compromised state.

"I've been thinking about this movie I saw when I was a kid," Beltane said, one hand on the wheel. "I don't remember the name. Billy Bob Thornton was in it. He played a guy who built his own rocket ship from scrap metal and flew to the Moon."

"I saw that," Penelope said without opening her eyes. "I don't remember the name, either. The government tried to stop him."

"That's the one. So, I get that the ship you guys flew in is fucked. What I don't get is why you can't build another."

Gage chuckled from the back. "Because this ain't a movie."

"No, but in the movie one guy did it, and we have a hundred. And we wouldn't have to *pay* for anything. We can take what we want. We can't make *one* rocket out of everything in Chicago?"

Aiden couldn't see anything out the side window. It was a solid wall of black.

"I guess *theoretically* you could do it, but without a trillion dollars' worth of quality control and technical support, you're going to make a dozen mistakes. It would just be a matter of which killed you first."

"So what you're saying is, better to sit tight and wait till the Sun comes out and the Nunki rebuild the wall," Beltane said.

"You heard the population estimate from the census team, didn't you?" Shakia said. "Four to five thousand. That's a lot of ships, unless we're only looking to save ourselves."

"Hell, yes, I'm looking to save myself," Beltane shot back.

Four to five thousand. Even if they combined the surviving population on Earth with the population on Mars, it was barely enough to have an outside chance at saving the human species, based on Paula Peavy's analysis. And dozens of people were dying in Chicago every day.

He glanced at Penelope. It wasn't only about the species, though; individuals mattered, too.

Penelope noticed him looking at her. She reached over, laced her fingers with his and squeezed. Aiden squeezed back. A warm shiver ran through him. It was the first sign Penny had given that there was something between them, that perhaps she loved him, too.

The van slowed. Beltane leaned forward, peered into the darkness. "We need to find gas pretty soon."

Monty pointed the flashlight to one side, painting light across apartment buildings set on a snow-covered rise.

They found a station a few miles on. Monty got the hose and ice pick out of the back and got to work filling the tank.

Aiden watched as he chipped away frozen snow, exposing the circular hatch leading to the underground tank. He began feeding the hose into the tank. Once it was in place he'd have to suck the gasoline up the hose.

A moment later he was reeling the hose back out, double-time. He hurried back to the van.

"Flashes of blue light up the street. Nunki."

It was the opportunity Aiden had been waiting for, but the news made him feel as if he was falling into a black pit. He squeezed Penelope's hand, then let it go and opened the door. "Here we go."

"Guys, I know you're sick of hearing me say this, but this is a terrible idea," Gage said. "These are monsters. They're not going to play doctor, they're going to cut you both down in your tracks."

"I agree with Gage," Shakia said. "Bad, bad idea. Just get in. We'll make a run for it."

Head down, Aiden went around and swung open the rear hatch. "Somebody help me with this, please."

Sighing, Gage helped him lift down the laundry basket filled with food. It seemed like a meager offering in exchange for someone's life, but it was all they could afford.

As they set it down, Penny strained to lift it. "I told you: you don't have to come. Either they'll help or they won't; there's no point in you risking your life as well."

Aiden pulled his pack out of the back, shrugged it on. "You ready?"

Shakia gave him a fierce hug, then Gage offered a hand. "We'll swing back around tomorrow." He pointed into the dark. "There's a Holiday Inn over there. Try to find that, and wait inside."

If they made it. That went without saying.

Monty handed Aiden a flashlight. They set off toward the approaching sound of Nunki, each carrying one handle of the basket. Aiden aimed the flashlight high, creating a beacon the Nunki couldn't miss. His heart was racing, his stomach a sick knot.

The mournful bellow of a Nunki was met by a second, joining almost in harmony.

"I'm so scared," Penny said.

Aiden spotted a diffuse blue glow ahead and to their left.

"There they are. I'll carry the basket, you sign 'food' and 'sick.'"

As Penelope handed over the basket and began signing, the blue glow was joined by two others—one to their right, the other straight ahead. They'd fanned out.

A Nunki appeared from behind a Ruby Tuesday restaurant, moving on all four of its limbs, half a thrift shop's worth of clothes hanging from it. At one moment it seemed to Aiden like a giant insect, the next it appeared startlingly humanoid. It raised up on its hind legs and signed. Penny and Monty had taught Aiden a few hundred signs, but his mind was a blank.

"It says to stop," Penelope said.



Aiden set the basket down and raised his hands.

He managed not to cry out when the crunch of footsteps in the snow was suddenly right behind them. He turned, arms still raised.

A huge Nunki—ten feet tall at least—loomed over him. It lashed out with one of its eight limbs, grabbed Aiden by the forearm and lifted him into the air. It grabbed Penny as well, then carried them off.

Even if Aiden could remember a single sign, he only had one free hand, so he gritted his teeth against the lancing pain radiating from his forearm and waited. It hadn't killed them on the spot. That seemed a good sign. It made little sense for it to carry them away just to kill them somewhere else.

It took them to the Ruby Tuesday's, entered through a broken-out section of the front windows and set them down among upended tables and chairs, where three more Nunki waited.

As soon as her arms were free, Penelope began signing.

*Sick*, Aiden recognized. Then another word, then *me*. *Help*—the second word was *help*.

The smallest Nunki responded, the ridge around its eyes flexing as it did so. Aiden couldn't follow; he looked to Penny.

"'Fix machines?' It wants to know if we know how to fix machines." Penny signed, *No*.

It signed again.

"'Question mark.' I think it wants to know what we *can* do. Like, 'What good are you? Tell us why we shouldn't kill you.'" She signed again. "I'm telling them I do 'computer talk.' Though I don't know what good that is to them."

With trembling hands, Aiden tried to sign himself. *Fix people*.

The Nunki signed at him. He looked at Penny. "What did it say?"

"'You fix people?'"

Aiden signed, *Yes. No fix her. You fix her?*

*Go vehicle*, it signed.

The big one grasped his arm, turned him around and led him toward a Hummer parked beside the restaurant. They directed Aiden to the driver's seat, and Penelope into the back. A four-limbed Nunki climbed into the passenger seat, a six-legged one squeezed into the back, crowding Penny into a corner of her seat. Their limbs were bony, with hooked spurs at the joints that looked sharp. Flaps of parchment-like skin stretched between their limbs and torsos like webbing.

"They want you to drive," Penny said. "Turn left out of the parking lot."

Aiden started the Hummer, put it in drive. He could barely feel his fingers, partly because of the cold but mostly because he was terrified. He was in a vehicle with Nunki; it felt like being in a vehicle full of spiders and snakes.

As he turned he risked the slightest glance at the Nunki in the passenger seat. It didn't look comfortable—both sets of joints in its lower limbs bent the opposite way, so it couldn't sit and have what passed for its legs on the floor at the same time.

He'd driven about a mile before he mustered the courage to turn on the heat.

## Chapter 14

**A**t first Aiden thought he might be hallucinating the glow of light in the distance. He felt like he'd been driving for days, although based on the ebb and flow from grey skies to black it had been more like twenty-four hours. As they cleared a rise, street-lights shone white in a vast, empty parking lot surrounding a long, modern-looking orange-brown building.

"Turn right." Penny sounded exhausted. She'd slept some, but sleeping upright in an SUV was hardly the kind of rest a cancer patient needed, especially one who had a secondary infection. And she did. Aiden hoped it was just a cold, or something else innocuous.

They came to an open gate, passed a sign that drew Aiden fully alert.

J. CRAIG VENTER INSTITUTE FOR GENOMIC RESEARCH.

Finally, he knew where they'd been heading, although he still didn't understand why. *Unless*. His flagging hopes soared. Unless they needed instruments here to heal Penelope? Would they go to all this trouble to help a human? Aiden had no idea.

They were led inside, through dark hallways, up a flight of steps, to a clean, well-lit lab where wheeled stools had been stacked in a corner and Nunki of all shapes and sizes moved about with purpose.

Aiden spotted a human—a woman in her sixties or seventies wearing a white lab coat, bent over a printout.

"Hello," Aiden called.

The woman flinched in surprise.

Her name was Valerie Hearst—she'd been a physiologist at the University of Chicago. As she shook Aiden's hand, she looked from Aiden to Penelope, who was feverish, her forehead damp. "Are either of you geneticists?"

"No. I'm an M.D. A psychiatrist. Penelope is a web designer. She has cancer—late-stage non-Hodgkin's lymphoma."

"I'm sorry to hear it."

Aiden looked around. "What's going on here?"

Valerie followed his gaze. "I'll tell you what I know, or what I think I know. The Nunki aren't exactly chatty." She gave him a tight, humorless smile. "I think they were struggling to survive in this environment even before the asteroid hit. I'm not sure if it's the temperature alone, the composition of our atmosphere, or what. They were working on incorporating human DNA into their physiology. That's why they let everyone in Chicago live—to serve as a gene pool. Then the asteroid hit, and killed off most of their technology. It knocked them back a thousand years. They have the knowledge, but not the equipment to adapt themselves. So now they're trying to adapt human technology."

"They'd introduce an alien race's DNA into their own bodies?" Aiden tried to imagine how he'd react if someone suggested introducing Nunki DNA into his genome. Nothing was more *him* than his DNA.

"They alter their DNA routinely." She gestured toward the Nunki hard at work around the lab. "That's why they're all so different from one other. Their children choose their own morphology when they reach a certain age, as a rite of passage. At least they did until the asteroid hit."

They altered their own structure at the DNA level. It was remarkable, and repulsive.

He glanced at Penelope. Her eyes were glassy. Whatever she had, it was getting worse. "If they can do all that, surely they can help Penelope."

Aiden's words seemed to startle Valerie. "How exactly did you end up here? They took you from Chicago, right? Someone told the Nunki you were a doctor?"

Aiden shook his head. "We went to them. They're Penny's only chance."

Valerie raised one eyebrow. "You've got iron balls, Doctor. I'll give you that. As far as I can tell, the Nunki aren't in the healing business." She shrugged. "But you can ask."

Aiden looked around. "Who would I ask?"

She chuckled dryly. "I've been here for three months and I still have no idea who's in charge."

Swallowing, Aiden chose a Nunki at random, walked up to it, pointed at Penelope and signed, *Her sick. You fix?*

The Nunki signed, *No*.

*Who fix?* He signed back.

The Nunki came toward him. Aiden raised his hands defensively, sure it was going to attack, but it brushed past and went to Valerie, signing furiously. Aiden couldn't follow it.

"It wants me to give you work to do. You're going to have to get up to speed on sign language, then you'll be translating journal articles and locating medical equipment."

"What about Penny?"

Valerie fixed him with a hard stare. "It said no. Don't ask again, at least for a few days. They *will* kill you if you get under their skin. Believe me. They killed my husband."

By the next morning, Penelope's breathing was labored, her fever high. Aiden and Valerie had set her up on a couch in an administrative office, and Aiden found IV bags in one of the unused labs and set one up. Valerie offered a packet of Amoxicillin; he gave Penelope two tablets.

Then he went to work, learning Nunki sign language. Valerie taught him while simultaneously working on her primary project, whatever it was. Aiden didn't really care.

He watched the Nunki out of the corner of his eye, trying to figure out which seemed to know what was going on, and which were workers taking directions. The problem was, he didn't even know how they communicated. His guess was it had to do with those ridges around their eyes.

They moved around a great deal, but most of them, regardless of their size or the number of limbs they possessed, seemed to have one lab station they kept returning to. Except one, who seemed to spend a more or less equal amount of time at each station. It was large, with eight limbs. Aiden figured it must be either higher status than the others, or lower.

It took Aiden about an hour to muster the courage to approach it.

When the Nunki moved close to his station, Aiden went up to it and signed, *Person sick. Will die soon. You fix person?* He'd learned a few new key words from Valerie.

The Nunki turned away. Heart pounding, Aiden followed. He positioned himself in the Nunki's field of vision and repeated the message.

*No*, it signed.

Aiden had learned another crucial word from Valerie. He signed it now.

*Why?*

*Fix Nunki*, the Nunki signed back, and turned away.

"Aiden," Valerie called. She waved him over emphatically. "It won't give you any warning. You see the barb on its limb, between the wrist and the elbow?"

Aiden nodded.

"It will shove that barb into your throat, as casually as you would pick a daisy."

Aiden watched the Nunki, hope draining from him, like his blood would if he persisted.

Fix Nunki. Those two words spoke volumes to Aiden.

"I'm going to check on Penelope."

"Don't be long." As Aiden turned away, she added, "I'm sorry, Aiden."

Penelope was awake. Her breathing was labored, her temperature over 103. She wasn't responding to the antibiotics.

"Am I dying?" she asked as he checked her pulse.

"It's just a respiratory infection." He fiddled with her IV line, although it was working perfectly.

Penelope reached out, took his hand and drew it to her. He stopped fiddling.

"I do want the truth. You know, in case you're being kind."

Aiden nodded. If she wanted the truth, she had the right to hear it. "You could still beat this, but . . ."

She nodded, her eyes shining with tears. "But I probably won't. That's what I figured."

"I'm working on the Nunki. I'm going to ask again as soon as I leave here. They could still come through."

Penelope reached up and pressed her hand to Aiden's cheek. "Just stay with me, as much as you can. That's all I want. I feel so much better when you're here. Almost not afraid at all."

Aiden wiped tears from his cheek with the back of his sleeve. "Let me try once more. I'll be right back, and I'll stay unless they drag me away."

He ran down the hallway, up the stairs to the lab, spotted the eight-limbed Nunki by the bank of windows. Aiden stepped right in front of him, signed, *Fix person*.

No.

If there was a sign for "please," Aiden didn't know it, so he kept signing, *Fix person*, *Fix person*, *Fix person*—

The Nunki clubbed Aiden in the side of the head, knocking him into a table. His legs buckled and he dropped to the floor.

Aiden tried to climb to his hands and knees, but his arms kept giving out. His ears were ringing, and blood was dripping onto the white tile floor.

The ringing in his ears receded. Aiden managed to rise to his hands and knees and crawl away, leaving a trail of blood.

"Are you all right?"

Aiden crawled right past Valerie, into the hall. A Nunki passed him without a glance.

When it was gone, Aiden struggled to his feet, using the wall for support. He touched the side of his head, found a deep gash above his ear, a few inches long.

In the medical supply room, where he'd found the IV bags, he located pressure bandages. After washing the cut in a basin of dishwater left in the hall, he bandaged the wound.

When he got back to the room Penelope was either sleeping or unconscious. Her breathing was shallow, ragged. He wondered if there was a respirator in the building somewhere. This was a research facility, though, not a hospital.

When he dabbed her forehead with a damp hand towel, her eyes fluttered open.

"Good," she whispered. She reached up, took his hand.

Aiden expected a Nunki to show up at the door any moment, but he stayed.

She had to pause every few words when she spoke. "I overheard you talking about big band music. That's why I came up and introduced myself. In case you were wondering."

It took Aiden a moment to follow what she was talking about. Gage's party, where they'd met. Penelope had come up to him out of the blue.

"You don't like big band music, though. Do you?"

Penelope shook her head. "But I knew you'd be interesting. Different. A guy your age, going on about Brazilian big band and Marlene Dietrich."

"Most people don't see those interests as a plus."

"Yeah, well, most people are dufuses." She closed her eyes. "I'm going to sleep now. Love you."

"I love you, too," he said, but Penelope was already asleep, and Aiden wasn't sure if she heard him.

Her breathing grew shallow, more labored.

Aiden watched her sleep. She sank to a point where Aiden knew if he tried to wake her, he wouldn't be able to. He dabbed her face with the towel, spoke to her softly so she'd know he was still there.

She took one last breath, big and full like a gasp, then exhaled slowly and was still. Aiden held her hand as numbness enveloped him.

What was there left to worry about? He'd lost Eva and Calvin. Now Penelope. Chicago's population had dwindled well below the threshold where there was any hope of the species surviving, so even his personal survival meant nothing in the end. So what was there now?

He kissed Penelope's cheek and drew the sheet over her head.

## Chapter 15

**T**he eight-legged Nunki signed to him:

*Centrifuge broken. We find another.*

Which meant Aiden find another, while OctoNunki watched him. Aiden didn't understand why the Nunki didn't send a lackey to guard Aiden when he left the premises to locate equipment. Maybe his buddy Octo wanted to learn how to salvage without relying on Aiden.

Aiden signed Yes, and followed the Nunki into the parking lot, trying to think of the nearest hospital that would have a full-sized centrifuge, while simultaneously seething with hatred for this creature. For this creature in particular, who'd had the power to save Penelope's life.

It was an effort to climb down the three flights of steps, even more of an effort to think about centrifuges. For the first time in his life, his anxiety had serious competition: depression. It was as if the darkness of the world had poured in and filled his heart and soul.

He burned with guilt for helping Nunki survive in exchange for his own life. The Nunki would solve their own problems and bask in the Sun's return, while the human race died out.

The Nunki stowed a duffel bag of tools in the back seat as it squeezed into the Hummer's passenger seat. Aiden was certain the Nunki had the knowledge to save humanity from extinction even now, past their natural population tipping point, if they chose. Aiden's eight-legged chaperone might know enough to do it single-handedly. But it wouldn't. *Fix Nunki*. That was all that mattered to them. If they'd placed any value on human life they wouldn't have invaded in the first place.

They could rewrite their own genome, add limbs and hearts, make themselves luminescent, and not just in the womb but *after*. It was astonishing. If humans could do the same, they could engineer their physiology to survive in Mars' atmosphere and be free of those damned suffocating habitrains. Now *that* would increase their chances of survival. Hell, theoretically they could engineer themselves to photosynthesize sunlight rather than eat.

What if Aiden could somehow get a message back to Gage and Shakia, and convince them to muster a small force and attack the Venter Institute? They could take hostages back to Chicago and force them to help humans, just as the Nunki were forcing Aiden to help them. They could send tutorials up to Mars. Of course, the Mars mission wouldn't have the equipment necessary to carry out such incredibly advanced genetic engineering. Maybe they could ship equipment to Mars on a small, unmanned ship.

He tried to imagine a handful of humans storming the Venter Institute and overpowering the Nunki. It felt like a fantasy, something out of a Hollywood film. And it

rested on the assumption that Aiden could somehow contact his friends in Chicago. As far as he knew there was no short-wave radio at the Venter Institute, and he was never allowed to leave without a chaperone.

Aiden glanced at the Nunki, crammed into the space beside him. The only vaguely realistic plan would be for Aiden to bring a Nunki genetic engineer to Chicago himself. And how realistic was that? He tried to imagine overpowering this creature looming beside him.

Maybe he could inject it with an elephant-sized dose of Haloperidol? If he could locate Haloperidol. If a syringe could penetrate the Nunki's thick skin.

This line of thought got Aiden's heart pumping, giving his anxiety an edge in its wrestling match with his depression. He preferred anxiety. It was familiar, and it energized rather than sapped energy, if in a sickening way.

He tried to calm himself by acknowledging that he would never actually carry out such a plan. Despite what Penelope thought, he was no hero. He wasn't a coward either, but there was a lot of space between a coward and a hero. He fit neatly into that middle ground.

As they passed under an overpass, Aiden eyed the massive concrete pillars supporting the road above. Could he drive the right side of the Hummer into one of those, slamming it into the Nunki, while leaving himself relatively unharmed? He'd buckled his seatbelt out of habit, while it wouldn't have been possible for the Nunki to do so even if it wanted to. Of course the Nunki was a genetically engineered biological super-species. The thing would probably walk away from the impact.

After filleting Aiden, of course.

Another way to look at it was that this was humanity's last chance for survival. All the centuries of history, from ancient Mesopotamia to the Roman Empire, the Renaissance to the industrial revolution, all the art, music, literature that was humanity, funneled down to this one moment in time, to whether one short, hairy, anxious man had the guts to steer his vehicle into a concrete pillar.

Aiden wasn't sure he liked looking at it from that perspective. Placing the weight of human history on his shoulders did nothing to help his nerves. It could lead right into a panic attack.

He nudged the accelerator, picking up speed.

Was he really contemplating this?

Evidently he was. But if he thought about it too carefully, he'd lose his nerve.

If he did it, he'd have to accelerate quickly, in the last few hundred yards, so the Nunki didn't have time to stab him in the throat with that transparent barb on what passed for its forearm. It was telling, that a species creating their own appearance would put barbs all over themselves.

An overpass appeared a quarter of a mile ahead, just visible in their headlights. Heart hammering wildly, Aiden nudged the accelerator up to forty, wondering if he could gain enough speed, driving in snow.

Was he really going to do this?

It felt as if someone else was clutching the steering wheel, and he was watching to see what those hands would do. Aiden eased the Hummer toward the shoulder. Snow mixed with black dust pelted the windshield.

The Nunki signed something as they picked up speed. Aiden stared straight ahead, as if he didn't see it.

The Hummer barreled toward the overpass.

Was he really going to do this? Suddenly he felt violently nauseous. He was going to vomit.

He floored the Hummer, aiming to shear it in half.

Yes, evidently he was really going to do this.

The Nunki grabbed the steering wheel. Aiden struggled to steady it.

He was in Penny's apartment, eating shepherd's pie with lamb and a glass of Pinot. Penny was wearing a brightly colored shift with ruffles that had a Mexican, or South American, flair. Her eyes were bright, and she was speaking between bites, but Aiden couldn't hear what she was saying. Her words were drowned out by a deafening hum. Aiden wanted to hear what she was saying, because even though she was here with him, he knew she was dead, so it was important that he hear these words no matter how trivial they might be. The humming drowned out everything, though. Even the pain.

Aiden opened his eyes. The white balloon of the airbag partially blocked his vision. To his right was the concrete pillar, close enough that he could touch it.

Gradually he became aware of pain radiating from his nose and mouth. When he lifted his head, the world tilted wildly before settling down. He was tempted to touch his nose to see how bad it was, but wasn't sure he wanted to know. Exploring with his tongue, he discovered one of his front teeth was loose.

The Nunki stirred, back and to his right. It was still alive. Slowly, carefully, Aiden turned.

It was jammed between the concrete piling and the passenger seat, which was now more like a back seat. It was straining to free itself.

He tried to remember what his plan had been, to restrain the Nunki so he could take it prisoner and bring it to Chicago. Bind its limbs? Had he even had a plan? He couldn't remember.

Aiden so wished he could go back to that dinner with Penelope. It was cold and dark here, so warm and bright in Penelope's apartment. Plus there was a monster here.

It was going to free itself soon. He wondered if he should kill it and go back to Chicago alone.

Yes. Kill it.

Except he had no weapon. He looked around for something sharp or heavy, maybe a piece of shrapnel from the wrecked Hummer.

He spotted the duffel bag. The Nunki's tools. There was a fire axe in that bag, which the Nunki used to break through locked doors. As Aiden reached for it, agony shot through his hip. He gritted his teeth, which triggered shooting pain in his mouth. Dragging the duffel to him, he reached inside. His fingers brushed the handle of the axe.

Aiden couldn't see the Nunki's face, but based on its redoubled efforts to break free, it could see that he had an axe. Only the thought of hacking the Nunki to death had him hyperventilating. The Nunki deserved it, but how could Aiden possibly carry out such a grisly act?

The Nunki jerked partially free. Now Aiden could see its face. He knelt on his seat facing backward, lifted the axe to the ceiling, aimed to bring it down in the center of the Nunki's torso. Monty had said it was hard to kill a Nunki, because it had duplicates of vital organs, and could staunch its own bleeding at will—

He hesitated.

Could it survive the amputation of its limbs? If it had no limbs it wasn't a threat. He could take it back to Chicago alive.

The thought horrified Aiden. It would be bad enough to kill it, but hacking its limbs off? He was so close, though. If he backed off now, he'd never forgive himself. Humanity would never forgive him.

The Nunki redoubled its efforts to break free as Aiden raised the axe. His eyes squeezed almost shut, Aiden brought the axe down on the nearest limb.

The Nunki let out a deep, deafening foghorn bellow.

Aiden pulled the axe free. He chopped again. The limb bent at a horrible angle; thick blood poured from the wound. In the dim light it looked greenish-black.

Suddenly, the bleeding stopped, as abruptly as a shut faucet.

The Nunki lashed out, speared Aiden's forearm, digging deep. Shouting in pain, Aiden swung the axe awkwardly with his other hand, drove the limb against the concrete piling, leaving a deep wound in it. He hit it again. The limb *cracked*, bent at a sharp angle as the Nunki bellowed. Aiden shifted his attention to another, swinging the axe frantically.

He could reach only five limbs. At that point he had no choice but to go outside and try to cut the Nunki free of the Hummer using the axe and a crowbar. The steel toward the rear of the Hummer was mostly intact, and Aiden was able to slowly hack and pry the rear door out of the frame. His hip was in agony; blood from the wound in his left forearm soaked his sleeve from wrist to shoulder.

Once the door was out he worked on the roof, taking care not to hit the Nunki, who was tensing and relaxing the stumps of its severed limbs, maybe in the Nunki version of shock.

He cut through a section of the steel roof support. The Nunki came rolling out so abruptly Aiden had to jump out of the way.

The Nunki scrambled, raised itself onto two of its three remaining limbs. It lunged at Aiden, slashed him across his stomach with the barbs on its free limb, shredding his shirt.

Aiden swung the axe wildly, striking the free limb down low, opening a deep wound just below its fingers. Before it could recover Aiden hit the limb farther up. He kept swinging, hitting it again and again, slashing the limb open in half a dozen places. Finally the Nunki couldn't hold the limb up any more and it sagged to the snow. Aiden stomped on the end and hacked it off with four swings of the axe.

The Nunki collapsed, its two remaining limbs splayed. Aiden eyed those limbs. It would be easy to remove them now, but without them the Nunki couldn't communicate with him.

Breathless, puffs of mist spewing from his mouth, Aiden looked around, tried to get his bearings. He needed transportation.

He opened the Hummer's rear hatch, pulled out the portable battery charger the Nunki kept back there in case of a breakdown, retrieved a flashlight from the duffel bag and limped up the steep incline that led to the road above.

Once there, he shone the flashlight on the Nunki. It was writhing in the snow, in obvious pain. It wasn't going anywhere on two limbs. There were no vehicles in sight, so Aiden set out walking.

He was fairly sure his hip was fractured. His entire face was throbbing, and the gouge in his forearm was deep and wide, like a second mouth. He thought he could see bone, and looked away.

He limped along, head down, one hand clamped on the neck of his coat to keep the wind out.

After what seemed an eternity of walking, he spotted a house with an SUV in the driveway. The SUV was unlocked. While the battery was charging he broke into the house using the axe, and found a ring of keys laying on the kitchen counter. He also found matches, and a needle and thread.

The Nunki watched from the ground as Aiden pulled the SUV behind the wrecked Hummer. Doubled over, Aiden approached the creature, shone the flashlight at its face.

*Why?* it signed with its remaining limbs.

*Fix humans*, Aiden signed back. He turned away before the Nunki could answer, if it intended to, and backed the SUV as close to it as he could.



Aiden opened the hatch, then backed away.

*Get in*, he signed. No way was he going near the thing.

While the Nunki dragged itself into the back, Aiden stitched the wound in his forearm. He hadn't stitched a wound since med school, and had never stitched with one hand while dealing with the pain of being stitched without anesthesia. He was exhausted. His mind roiled with worries of the Nunki attacking him while he drove, of getting lost, of breaking down.

As he drove he watched the rear view mirror more than the road, but either the Nunki was too incapacitated to reach him, or it was wary of the axe propped against the passenger seat.

The SUV idling in the middle of I90, Aiden tossed a bag of Snyder's sourdough pretzels into the back. The Nunki retrieved them, opened the bag, and began to eat them one at a time.

His head pounding, wounds throbbing, Aiden signed to the Nunki. *Sun comes out. Nunki go to*—Aiden paused. There was no sign for Mars.—*Not Earth, kill humans?*

*Why?* The Nunki replied.

There was also no sign for revenge. *We pushed big rock.*

The Nunki didn't reply.

Aiden repeated the question.

*No*, the Nunki signed.

It was possible it was lying, but it was also possible they had a different way of reasoning than humans. If revenge was part of their psyche, they would have killed Aiden in *Red Two*, when he admitted to diverting the asteroid.

*Sleep picture bad*, the Nunki signed.

Aiden didn't understand. Sleep picture?

Then, with a jolt, he got it. Sleep picture. *Dream*. The Nunki had had a nightmare. Not surprising, given the trauma it had experienced.

Aiden wasn't sure how to respond. The Nunki deserved nightmares, after what it and its kind had done. Yet Aiden couldn't help feeling sympathy for it, because of what Aiden had done to it. If it were a human client he would ask it to describe the dream, and Aiden would help peel back the layers, to understand the message behind the dream.

*What sleep picture?* he signed.

*Darkness.*

The universal boogeyman. Only darkness was probably more terrifying to Nunki than to humans, because Nunki relied on the Sun for everything.

By the light of his flashlight, Aiden could see two of the Nunki's hearts, beating away. Were they racing faster than usual? Did it feel alone, and afraid?

## Chapter 16

When his headlights painted their house in Chicago with light, Aiden cried out in relief. He slumped across the steering wheel, his chest sounding the SUV's horn in one continuous, deafening honk.

Seconds later, Shakia opened his door. "Oh, my God. Aiden." She raised her voice. "*Hurry. It's Aiden. He's a mess.*"

She tried to ease him out of the SUV. Aiden clutched her hand. "There's a Nunki in the back. Whatever you do, don't let anyone hurt it."

Eyes wide, Shakia lifted her head, peered into the back of the SUV.

"It's incapacitated," Aiden whispered.

"Whatever you say." She brushed Aiden's face with her fingertips. "You look like you've been through a war."

"Oh, jeeze." Gage reached across Shakia and rested a hand on Aiden's shoulder. "I got him."

Shakia stepped aside. Gage slid one hand under Aiden's knees, the other behind his back, and lifted him out.

As they headed toward the house, Aiden heard Shakia call out, "I need help here. There's a live Nunki back here." Then she gasped. Aiden guessed she'd just noticed the amputated limbs.

## Chapter 17

**T**he fireplace was heaven. The warmth on his face, his fingertips, his bare toes, was ecstasy.

Gage appeared holding a steaming bowl. "Soup. Chicken noodle. Progresso—not that weak-ass Campbell's crap."

Aiden sat up, accepted the bowl.

"How you feeling today?" Gage asked. Aiden was fairly sure it had been three days since his return, but it was easy to get confused with all the darkness. Plus he'd been high on OxyContin and sleeping most of the time.

"Better. I may try laying some groundwork with the Nunki in a while."

"I'm still trying to wrap my head around what you're suggesting," Gage said. "You're proposing we let a Nunki turn us into Martians?"

"That's exactly what I'm proposing." Turn some of them into Martians, anyway, and not all at once, but Aiden wasn't in the mood to equivocate. "If we're going to survive, we have to adapt."

Gage looked skeptical. It wasn't going to be up to Gage, though, so let him be skeptical.

"Has anyone communicated with the Nunki? Does it seem at all open to cooperating?" Aiden asked. The alternative would be to torture it, and it seemed unlikely they could torture it into providing the elaborate tutorial they needed.

Gage nodded. "They're pragmatic bastards, I'll give them that. Unless it's lying, it's willing to help in exchange for food and a decent quality of life. It said helping people live on Mars won't hurt Nunki on Earth."

That was encouraging. Aiden wanted to get started right away, but it could wait until he finished his soup.

"You think you can handle more good news?" Gage asked. "It's been so long since we've had any, I don't want you to overdose."

"No, I'm definitely suffering from a good news deficiency." He thought of Penelope. "Go ahead, shoot."

Gage grinned. "Remember Beltane's idea, to build a ship from scratch?"

Aiden nodded. That seemed like a hundred years ago.

Gage waited a beat. "We have three under construction."

Aiden nearly dumped his soup. If even one was functional, they could take the Nunki to Mars, along with the necessary equipment. Assuming the Nunki really would cooperate. It was a chance, though.

"We haven't been sitting around on our asses while you were out playing Batman."

"That's great news. Fantastic."

As Aiden ate his soup, Gage studied his face, frowning in concentration. Aiden realized it was the same look Gage had given him in Grant Park as the Nunki were bearing down on *Red Two*.

Aiden paused, spoon hovering halfway between bowl and mouth. "What?"

Gage sat on the arm of the couch. "You crap your pants when you have to speak in front of eight people. You can't sleep without your big band recordings to settle your nerves, even when all you've got to worry about is *absolutely nothing*. How the hell did you hold it together and do what you did out there?"

Aiden shook his head. "You still don't get me. I didn't hold it together. Most of the time I felt like I was having a heart attack. But I'm used to being terrified at the prospect of doing something, then plowing ahead and doing it anyway. It's the only way I can ever do *anything*." He could have added that death was far down the list of things he feared. Death had an upside. Living terrified him much more than dying.

Gage nodded, still studying him. "I guess I get what you're saying. A little, anyway." He squeezed Aiden's shoulder before heading off.

Aiden wondered if the trauma of the past few days might recalibrate what his brain considered terrifying. Maybe speaking in front of eight people would no longer set off his anxiety now that he'd vanquished a monster with nothing but an SUV and an axe. He doubted it, but it was nice to dream. More likely he'd go back to dosing himself with Xanax and booze to get through the days.

Shakia joined him on the couch, examined his face as a doctor might before nodding, satisfied. Shakia and Gage were keeping their distance from each other since their unsuccessful journey in search of Gage's family. Maybe Beltane was the one to ask, if he wanted to find out what had happened out there.

Her gaze on the flickering flames, Shakia patted Aiden's knee. "You're a remarkable man, Aiden. You're still all tied up in knots, but you're remarkable."

"That means a lot coming from you." And it did, it truly did.

## Chapter 18

**G**age followed the arc of the bottle of Highland Park Islay scotch as Aiden took a swig, then set it back down beside his reclined, cushioned liftoff chair.

"What?" Aiden had trouble forming the word, because he was soused.

"Let me have some of that."

Aiden walked the bottle over to Gage. The other eight people in the ship's cabin—and even the Nunki—watched as Gage, who was about to pilot their home-made ship to Mars, took a long pull from the bottle.

Letting out a satisfied gasp, Gage handed the bottle back to Aiden. "We might as well strap in and get on the road. Man, are we gonna be sick of each other by the time we get there."

As Aiden strapped in, he reminded himself that the first two ships had launched successfully, and were on their way. If a ship was going to fail, odds were it would be the first, not the third. Yet as Gage went through preflight checks, Aiden's bowels were roiling.

"You all right?" Shakia asked.

"Of course not. When am I ever all right?"

Shakia gave him a reassuring smile. "We'll be fine."

Aiden watched the Nunki as it strapped itself into its custom-made seat with its two remaining appendages. They still had a long way to go, but maybe they would be fine, after all.

Aiden took one more swig from the bottle to calm his bitter enemy, his old friend. ○

# NEXT ISSUE

**SEPTEMBER ISSUE** **Brenda Cooper's** lead story in our September 2015 issue looks at the lines we draw between ethics and scientific research. A deadly clash between forces making last ditch efforts to preserve life as we know it and renegades involved in potentially dangerous, but possibly life saving, experimentation will ultimately determine what will be the "Biology at the End of the World"!

**ALSO IN SEPTEMBER** Distinguished author **Jim Grimsley** returns to *Asimov's* with a terrifying depiction of "The God Year"; Nebula Award winner **Vylar Kaftan** exposes us to an arctic chill on "The Last Hunt"; **Sean Monaghan's** "The Molenstraat Music Festival" paints a far future of exquisite invention that hasn't lost touch with the beauty of art; **Jason Sanford's** "Duller's Peace" imagines a far less happy future where even thoughts are under government surveillance; new to *Asimov's*, author **Sam J. Miller** looks at lives upended by drastic climate change in "Calved"; and **Peter Wood** lightens our mood as he chronicles the story of a single mother and her young son out "Searching for Commander Parsec."

**OUR EXCITING FEATURES** **Robert Silverberg's** Reflections hands us the key to "The Sixth Palace!"; **Paul Di Filippo's** On Books investigates the short form, with a look at collections by Robert Silverberg and Delia Sherman, as well as a new Dozois/Martin anthology; plus we'll have an array of poetry and other features you're sure to enjoy; Look for our September issue on sale at newsstands on August 11, 2015. Or subscribe to *Asimov's*—in paper format or in downloadable varieties—by visiting us online at [www.asimovs.com](http://www.asimovs.com). We're also available individually or by subscription on *Amazon.com's* Kindle and Kindle Fire, and *BarnesandNoble.com's* Nook, as well as from [magzter.com/magazines](http://magzter.com/magazines), Google Play, and Kobo's digital newsstand!

**COMING SOON** new stories by **Greg Egan, Sandra McDonald, Rick Wilber, Aliette de Bodard, Robert Reed, Alan Smale, Daryl Gregory, Timons Esaias, M. Bennardo, Ian Creasey, Amanda Forrest, Robert R. Chase, R. Neube, Ian McDowell**, and many others!

**GOLDEN SON****By Pierce Brown****Del Rey, \$25.00 (hc)****ISBN: 978-0-345-53981-6-5**

**S**econd in Brown's "Red Rising" trilogy, this novel is set in a future solar system where a rigid caste system supports a brutal aristocracy. This is a classic SF scenario. In fact, it sometimes seemed that half the novels of the 1950s and '60s focused on the struggle against an oppressive elite, whether political or economic. It's Orwell's *1984*, it's Frank Herbert's *Dune*, it's almost everything by Pohl and Kornbluth . . . and a lot more. Recently, it's come back into prominence—the "Hunger Games" trilogy is probably the best known example.

Darrow, the protagonist of Brown's trilogy, began as a Red—a Martian mine worker, essentially a slave, at the dead bottom of the social order. The death of his wife—hanged by the aristocrats for singing a forbidden song—started a series of events that resulted in Darrow being recruited into a plan to overthrow the social order. He was surgically enhanced and trained to pass as a Gold, one of the super-warrior aristocracy that rules the Solar System. After excelling in a brutal ordeal designed to identify the elite warriors among the young, he was taken as a protégé by the very aristocrat who presided over his wife's murder. That's the starting point of this volume.

But Darrow has made powerful enemies among the Golds, who are jealous and resentful of his success in the first book. In the opening chapter here, they make it clear that his success so far means nothing in the long run. And his fickle patron decides to withdraw his support, telling Darrow that he will put his ser-

vices up to bid at the annual convention of noble houses, held on the Moon. At the same time, Darrow's enemies make it clear that they intend to kill him at the first opportunity.

Darrow's allies—especially the Sons of Ares, who oversaw his conversion to a Gold—have other plans for him. The convention of noble houses is an obvious target for sabotage—and they prime him to take out the cream of the aristocracy in one grand coup at the opening banquet. Instead, Darrow throws both his allies and his enemies into confusion, opening up a conflict wider than either side had foreseen.

Brown builds the conflict effectively, with Darrow gradually growing in stature as he launches his new plan to free the oppressed people of the Solar System. Along the way the reader gets a look at several other segments of Brown's fictional universe—including return appearances of several characters from his earlier career and a visit to his old home at the mines of Mars. Brown plays these incidents for maximum dramatic impact, and gives Darrow enough reversals of fortune to keep the course of the plot from becoming too predictable.

While this is smaller in scope than George R.R. Martin's "Song of Fire and Ice," and is nominally SF rather than fantasy, readers waiting for the next installment in Martin's series are likely to find Brown's work much to their taste.

**UNDERCITY****By Catherine Asaro****Baen, \$16.00 (tp)****ISBN: 978-1-4767-3692-1**

This book begins a new series set in Asaro's Skolian Empire, featuring

Major Bhaajan, a former military officer who's launched a new career as a private eye.

The book begins with Bhaajan being offered a large fee to take on a case for an unknown client. She accepts, and finds herself on a space voyage that ends up on her native planet, Raylicon, where she learns her client is the matriarch of House Majda—the royal family of her world. This is not at all what she wants, but she realizes she can't easily duck out of the assignment now that she's accepted it.

Raylicon, like most of the worlds of Asaro's connected series, is a matriarchal society. Especially among the nobility, males are the equivalent of harem slaves, kept in isolation from non-family females and limited in opportunities. So Bhaajan is surprised when she learns that her assignment is to find a lost member of the royal family—the beautiful prince Dayj, who has somehow managed to escape the palace and vanish. The problem is, he has so little experience in the real world that he's likely to be an easy mark for the extensive underworld of the City of Cries.

Realizing that, Bhaajan seeks out one of her childhood friends—Jak, who runs the most notorious gambling house in the city. This leads to a reconnection with her past in the slums beneath the royal city—a past in which she was a gang member, living on the edge of the law and doing whatever it took to survive. Most of the companions of her youth are still in place, surviving as best they can in a world where those in charge consider them undesirables, when they deign to notice them at all. And the slums turn out to hold the answer to what happened to the missing prince. But the answer opens up the question of why he disappeared in the first place—a much more troubling mystery. And of course, House Majda wants Bhaajan to work on the new case.

Asaro does a good job deploying the conventions of the private eye genre in an SF scenario, and by setting the novel fairly early in her established timeline,

she gets the chance to set up the origins of several institutions that play a role in her stories set later in the history of her Skolian series.

If you're not among Asaro's regular readers, this would be a good place to start: a well-paced plot with a strong protagonist, set in an interesting fictional world that inverts a lot of stock assumptions about the way things are supposed to work.

### **LEGION: SKIN DEEP**

**By Brandon Sanderson**

**Subterranean Press, \$45.00 (hc)**

**ISBN: 978-1-933500-87-4**

Sanderson, best known for completing Robert Jordan's "Wheel of Time" epic, here takes on a quirky SF theme: a protagonist with multiple personalities. Each of them has special talents and expertise, which Stephen Leeds draws on to help him solve mysteries.

Leeds' client in this book is a biotech entrepreneur whose star researcher has been murdered. The entrepreneur suspects one of his competitors was seeking to steal the hot new technical breakthrough the victim was working on. It's a way to store data in the human body itself. There's a downside to the breakthrough, of course. The technology could also become the seed for an unstoppable cancer epidemic. And now the research itself has gone missing. Leeds has to find out whether the genie is out of the bottle—and if so, who's got it.

This is where Leeds' army of specialist personalities comes into play. They're hardly a tractable group. Each has his own quirks and neuroses. Ivy, a female aspect, has a catty streak, which usually comes out around other women. Tobias gives him lectures on architecture. J.C. claims to be a trained killer with a Special Forces background. And there are others, all with different expertise and attitudes. Predictably, they don't all get along—nor do they all share the protagonist's tastes and opinions in day to day matters, notably his taste in friends—especially girlfriends.

The interplay between these inner voices and the ongoing plot twists is the source of both tension and humor. The story begins with Leeds having dinner with an attractive young woman, while trying to ignore Ivy's obnoxious comments about his date. Meanwhile, J.C. claims he's spotted a professional assassin at a nearby table. This sets off a roller coaster plot in which Leeds' attempt to find the murderer is both aided and hindered by his numerous alter egos. The portraits of various techies and entrepreneurs carry enough satiric edge to bite without degenerating into comic stereotypes. And the payoff is both credible and entertaining.

A fun read, quite different from what a reader who knows only Sanderson's work in Jordan's fictional universe might expect.

## **SWORDS OF WAAR**

**By Nathan Long**

**Nightshade, \$14.99 (tp)**

**ISBN: 978-1-59780-429-3**

Here's the second installment of the adventures of Jane Carver, whose adventures on the planet Waar mirror those of her near-namesake, John Carter, in Edgar Rice Burroughs' "Barsoom" series.

Exiled back to Earth at the end of the first volume, Jane is desperate to return to Waar, where she found herself in love with a purple-skinned native nobleman, Lhan Lar. Her search has several complications, the first being that the local police want her because of an accidental killing before she left. Also, the gateway she used to travel to Waar isn't working anymore. Eventually she finds another—only to land in the middle of a pack of priests, a group of Waarians with whom she had more than her share of run-ins in the first book of the series.

She discovers that she and Lhan Lar have been accused of kidnapping the daughter of the ruler who aided them against the priests in their previous adventure. So when she manages to escape—partly by sheer audacity, partly by being stronger than the locals on account of the lower gravity of Waar—she

has a mission above and beyond finding her missing lover. This leads her into the complex political intrigues of the planet, in which she finds out the secret behind the priests' power and, ultimately, a way to break it.

Long gets considerable mileage out of the implicit—and explicit—connection with the "Barsoom" books, using Jane's potty-mouth vocabulary and working-class sensibilities to shoot down some of the inflated assumptions of Burroughs, who was after all a product of the late Victorian age and wrote like it. A particular target in this book is Lhan Lar's aristocratic assumption that his lady love should take a subordinate place, and certainly should not do anything as gauche as rescuing him from peril—as happens over and over. Lar finds it especially hard to handle when Jane does something as deflating as picking him up and carrying him out of dangers, as her greater strength makes it relatively easy to do.

Like the first in the series, *Swords of Waar* is probably most fun for those who read the Barsoom books at an early enough age to find them exciting and would like something with the same kick—but smarter and with a modern sensibility. Much as with Charlie Stross's reworkings of H.P. Lovecraft's themes from a twenty-first century worldview, these books gain much of their vigor by building on the fundamental materials of the first blossoming of SF/fantasy as a popular genre and making them work for readers who live in a world where the root assumptions of the Victorian era no longer hold true.

Long has done what he can to make this one readable as a standalone, but you'd do well to seek out the first volume, *Jane Carver of Waar*. If you like that one, you'll enjoy this one even more.

## **GRAND CRUSADES**

**The Early Jack Vance, Vol. 5**

**Edited by Terry Dowling and**

**Jonathan Strahan**

**Subterranean, \$45 (hc)**

**ISBN: 978-1-49606-710-3**

Five of Vance's science fiction tales, from novella to short novel length, make up this collection. Published between 1950 and 1965, they show Vance drawing on the pulp fiction tradition with adventure-oriented space journeys.

Several of the pieces previously appeared under different titles. "The Raparee," which opens the volume, was published as "The Five Gold Bands." "Crusade to Maxus" made its first appearance as "Overlord of Maxus." And "Gold and Iron" was published as "Slaves of the Klau." The titles here are Vance's preferred titles, taken from manuscript copies of the stories.

While few would claim these tales represent Vance's finest work, they have many things in common with his better-known fiction. For one, his protagonists are rarely paragons of virtue—in some cases, it would be a stretch to call them "gray." In "Maxus," for example, the protagonist, Travec, has an admirable goal—but his methods are so extreme he seems as much a monster as his adversaries. Again in "Gold and Iron," the protagonist's ethics are most accurately described as Machiavellian. Vance's characters in these stories may be in the right, but they can be hard to find likeable. These are not your typical light-hearted space operas! But the compelling plots and idiosyncratic societies plus Vance's delicious style set these stories apart.

Those familiar with Vance's preferences in music won't be surprised to find a couple of references to the traditional jazz of which he was a lifelong fan, most interestingly in "Gold and Iron" where the protagonist takes a woman from an advanced alien society to see the Yerba Buena Jazz Band at Hambone Kelly's, one of the central icons of the San Francisco jazz scene of the 1940s and '50s. The music plays an even more interesting role in the final piece in this collection, the ironically named *Space Opera*.

In that novel, a rich society woman from Earth, Dame Isabel, decides to expose the residents of other planets to the

riches of our planet's musical heritage—grand opera, in particular. She assembles a company of musicians and singers, and sets off to conquer the galaxy, brushing aside all obstacles with the arrogance of her class.

The particular destination is Rlara, from which a group of performers has come to Earth under mysterious circumstances, performing their intriguing music and suddenly disappearing. Dame Isabel dragoons the space captain who brought them to Earth into taking her opera company to Rlara—and several other stops on the way—by refusing to pay him money she already owes him until he completes the next task. Also along for the ride is Dame Isabel's nephew Roger, who cares nothing for her plan or for the music, but who dares not offend her because he stands to inherit her fortune. Roger is more interested in Madoc, an attractive young woman of mysterious origins, who has managed to smuggle herself aboard the ship.

While there is a satirical vein not far below the surface of most of Vance's work, *Space Opera* brings that aspect to the fore. In their introduction, Dowling and Strahan note that Vance was a fan of P.G. Wodehouse's comedies of manners, and Roger can easily be seen as a version of Wodehouse's Bertie Wooster in space. Vance is also amused by Dame Isabel's attempts to match the opera company's repertoire to the character of the various alien societies they visit.

Vance shows a musicologist's familiarity with the opera repertoire, and he has a good bit of fun with the personalities of the musicians in the troupe. He also has considerable fun with the reactions of the audiences, which invariably appall Dame Isabel. And here, as in the other early work on display in this volume, there's always a turn of phrase that nobody else but Vance could have come up with.

The plot ends—as do several of these stories—on a slightly unresolved note, as if to deny the idea of any true finality. One set of actions is complete, but the world will continue and these characters



will live to see other events, the nature of which we can only conjecture.

These Vance collections from Subterranean—this is the fifth in the series—are one of several programs of SF reissues from major figures of the post-World War II era. Night Shade is doing a Gordon Dickson reissue series, and Baen has been bringing out the works of Andre Norton with some regularity, along with a healthy amount of early Heinlein.

It's probably too much to hope that these reissues—especially at the collectors' prices of the Subterranean editions—will find a large audience among younger readers. But for those who grew up reading them, it's a chance to reread some old favorites—especially if your mother tossed out your collection of old SF magazines or Ace Doubles, where several of these pieces first appeared. ○

# SF CONVENTIONAL CALENDAR

**M**ost of the events this time around are for specialized interests. But ConGregarate, Pi-Con, ConFluence and ArmadilloCon are good general-interest possibilities. I'll be at ReaderCon, with focus on literary aspects. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of our con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con five months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard.—Erwin S. Strauss

## JULY 2015

- 9–12—ReaderCon. For info, write: Box 65, Watertown MA 02471. Or phone: (973) 242-5999 (10 am to 10 pm, not collect). (Web) [www.readercon.org](http://www.readercon.org). (E-mail) [info@readercon.org](mailto:info@readercon.org). Con will be held in: Burlington (Boston) MA (if city omitted, same as in address). Guests will include: Nicola Griffith, Gary K. Wolfe, Joanna Russ. Imaginative literature: SF, fantasy, etc. Over 150 professionals (writers, etc.).
- 8–12—Comic Con International. [www.comic-con.org](http://www.comic-con.org). Convention Center (and most hotels in the city), San Diego CA. 150,000 expected.
- 9–12—AnthroCon. [www.anthrocon.org](http://www.anthrocon.org). Westin Hotel, Pittsburgh PA. Ted Giannoulis (the San Diego Chicken). Anthropomorphics/furries.
- 10–12—ConGregarate. [www.con-gregarate.com](http://www.con-gregarate.com). Radisson, High Point NC. Timothy Zahn, Michael Stackpole. "Scoundrels and Rogues" theme.
- 16–19—NECon. [www.campnecon.com](http://www.campnecon.com). Roger Williams College, Bristol RI. Seanan McGuire (Mira Grant), Chuck Wendig. Writers' workshop.
- 16–19—TTCon. [www.tfon.ca](http://www.tfon.ca). Hilton, Mississauga (Toronto) ON. P. Cullen (voice of Optimus Prime), J. Moschitta (G1 Blurr). Transformers.
- 17–19—Ancient City Con. [www.ancientcitycon.com](http://www.ancientcitycon.com). Jacksonville FL. Author R. J. Jojola, J. Pierce. "Multi-genre fandom and gaming" con.
- 17–19—Creation. (818) 409-0960. [www.creationent.com](http://www.creationent.com). Parsippany NJ. Salute to "The Vampire Diaries." Commercial media event.
- 18–19—ConKasterborous. [www.conkasterborous.com](http://www.conkasterborous.com). Westin, Huntsville AL. Jason Haigh (Dr. Ellery from "Big Finish"). Doctor Who.
- 19–Aug. 1—Shared Worlds. [www.wofford.edu/sharedworlds](http://www.wofford.edu/sharedworlds). Wofford College, Spartanburg SC. C. M. Valente. Writers' workshop.
- 23–26—Cascade Writers. [www.cascadewriters.com](http://www.cascadewriters.com). Ramada, Kent WA. Claire Eddy (Tor editor) and many others. Writers' workshop.
- 24–26—ConFluence, Box 3681, Pittsburgh PA 15230. (412) 344-0456. [www.confluence-sf.org](http://www.confluence-sf.org). Sheraton, Mars PA. Joan Slonczewski.
- 24–26—ArmadilloCon, Box 26442, Austin TX 78755. (512) 343-2626. [www.armadillocon.org](http://www.armadillocon.org). Ken Liu, James Morrow, L. Timmel Duchamp.
- 24–26—DiversiCon. [www.diversiicon.org](http://www.diversiicon.org). Best Western Bandana Sq., St. Paul MN. Ytasha L. Womack, Rob Callahan, Sun Ra (in memoriam).
- 24–26—Creation, 217 S. Kenwood, Glendale CA 91205. Or contact as above. Washington DC. Theme: "Supernatural." Commercial.
- 24–Aug. 9—Horror Realm and Pop Expo. [www.horrorrealmcon.com](http://www.horrorrealmcon.com). Crowne Plaza Pgh. W., Pittsburgh PA. R. Hunt (Sons of Anarchy).
- 24–Aug. 9—Pennsic War, 205 Curry Rd., Slippery Rock PA 16057. [www.pennsicwar.org](http://www.pennsicwar.org). Cooper's Lake. Medieval re-enactors.
- 30–Aug. 2—GenCon, 120 Lakeside Ave. #100, Seattle WA 98122. [www.gencon.com](http://www.gencon.com). Indianapolis IN. Gaming event. Over 14,000 fans.
- 31–Aug. 2—Pi-Con. [www.pi-con.org](http://www.pi-con.org). Sheraton Bradley Airport, Windsor Locks (Hartford) CT. Tanya Huff, Vikki Chialfione.
- 31–Aug. 2—August Party. [www.facebook.com/AugustParty40](http://www.facebook.com/AugustParty40). Alexandria VA (near DC). Reunion of Star Trek con of 1970s and 80s.
- 31–Aug. 2—WinkieCon. [www.ozconinternational.com](http://www.ozconinternational.com). Town & Country Resort, San Diego CA. Wizard of Oz and works of L. Frank Baum.
- 31–Aug. 3—MythCon. [www.mythsoc.org](http://www.mythsoc.org). Colorado Springs CO. Jo Walton. "The Arthurian Mythos," and high fantasy generally.

## AUGUST 2015

- 6–9—Creation. (818) 409-0960. [www.creationent.com](http://www.creationent.com). Las Vegas NV. Salute to "Star Trek." Commercial media-oriented event.
- 7–9—Shore Leave, Box 6809, Towson MD 21185. [www.shore-leave.com](http://www.shore-leave.com). Hunt Valley (Baltimore) MD. Star Trek and other SF media.
- 7–9—Flashback Weekend. (847) 647-3124. [www.flashbackweekend.com](http://www.flashbackweekend.com). Rosemont (Chicago) IL. "Halloween" movies, other horror media.
- 7–9—MuseCon. [www.musecon.org](http://www.musecon.org). Westin, Itasca (Chicago) IL. Bro. Guy Consolmagno, S. J. "Creativity in All Its Forms" is the theme.
- 7–9—BronyCon. [www.bronycon.org](http://www.bronycon.org). Baltimore MD. Andy Price, Charlotte Fullerton, G. M. Borrow. For all-age "My Little Pony" fans.
- 7–9—Deadly Ink. [www.deadlyink2014.org](http://www.deadlyink2014.org). Hyatt, New Brunswick NJ. Brad Park, E. F. Watkins, I. Schneider. For fans of mystery fiction.
- 7–9—Nine Worlds GeekFest. [www.nineworlds.co.uk](http://www.nineworlds.co.uk). London UK. Gaming, film, cosplay, fandom, literature, science and geek culture.
- 7–9—Sweden National Con. [www.confuse.nu](http://www.confuse.nu). Nationernas Hus, Linköping, Sweden. Madeline Ashby, Kristina Hard, Ben Aronovich. SF and fantasy.
- 8–9—PhantomCon. [www.phantomcon.com](http://www.phantomcon.com). Holiday Inn Fort Lee North, Richmond VA. For "Phantom of the Opera" fans.
- 19–23—Sasquan, PMB 208, 15127 Main St. E., Suite 104, Sumner WA 98390. [www.sasquan.org](http://www.sasquan.org). Spokane WA. Gerrold. WorldCon. \$210.

## AUGUST 2016

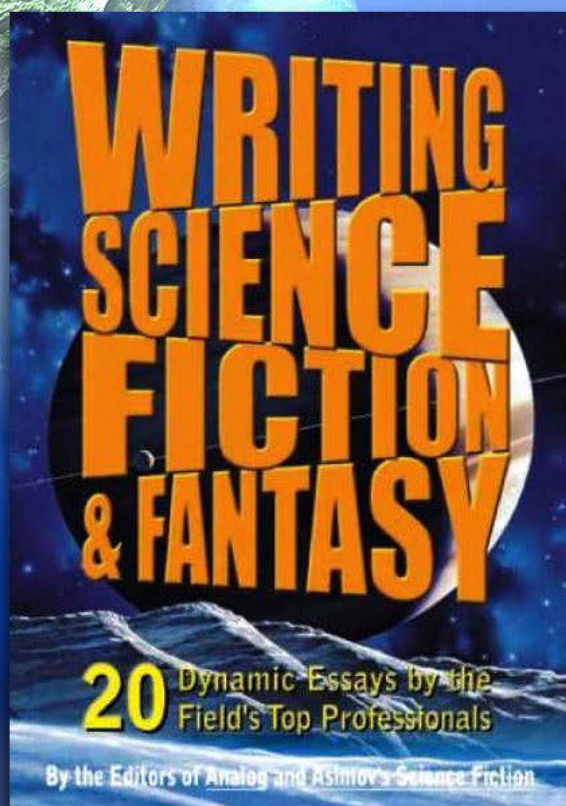
- 17–21—MidAmeriCon II, Box 16, Santa Rosa CA 95402. [www.midamericon2.org](http://www.midamericon2.org). Kansas City MO. Kinuko. Y. Craft. WorldCon. \$150.

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